DOCUMENT RESUME

ED 288 288	EC 200 759
AUTHOR	Rockwell, Gwen; And Others
TITLE	Cooperative Education: A Transition Option for High School Youth with Disabilities--A Literature Review and Empirical Study of Cooperative Education Programs in Washington State.
INSTITUTION	Washington Univ., Seattle.
PUB DATE	[86]
NOTE	141p.; Prepared by the Commission for Vocational Education. Funds were made available under the Job Training Partnership Act, Employment Security Department, and the Commission for Vocational Education. Portions contain small/light type.
PUB TYPE	Reports - Research/Technical (143) -- Information Analyses (070) -- Tests/Evaluation Instruments (160)
EDRS PRICE	MF01/PC06 Plus Postage.
DESCRIPTORS	*Cooperative Education; *Disabilities; *Education Work Relationship; High Schools; Job Placement; Student Participation; Teacher Attitudes; Teaching Methods; *Vocational Education; *Vocational Education Teachers
IDENTIFIERS	Washington

ABSTRACT

A collaborative study surveyed cooperative vocational education teachers (N=59) and secondary special education teachers (N=16) from metropolitan, urban, and rural school districts in Washington State regarding (1) the number of physically or mentally disabled youth who are enrolled in and placed on jobs from cooperative education classes; (2) their perception of the barriers to the participation of disabled students in such classes; and (3) vocational educators' perceptions of their own levels of implementation of legally mandated or professionally recommended practices. Questions regarding barriers were also addressed to employers, parents, and disabled youth. Six related studies investigated the relationship between enrollment and job placement outcomes for high school youth who had been assessed eligible for special education and programming practices, teacher in-service hours, and population density. Tables present detailed cross-tabulations of the survey findings. The research results, analyses, and recommendations provide the basis for the Vocational Education Support Team model, designed to increase enrollment and employment of disabled youth in cooperative vocational education classes. Its five core components are active recruitment, guided placement, continuing support, job placement and follow-up, and transition. Appendices include survey instruments, materials to be used to implement the model, and survey summaries. (Author/VW)

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SPECIAL EDUCATION

Vocational Special Needs Programs

COOPERATIVE EDUCATION: A TRANSITION OPTION FOR HIGH SCHOOL YOUTH WITH DISABILITIES--A Literature Review and Empirical Study of Cooperative Education Programs in Washington State.

Gwen Rockwell
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University of Washington
Seattle, Washington

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Principal Investigator

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Director

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James Q. Affleck, Principal Investigator

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We gratefully acknowledge the encouragement and guidance of Ron Berg, program specialist and project officer, Commission for Vocational Education; Jack Ray, program director, Division of Vocational Technical and Adult Education Services (DVTAE), Office of State Superintendent of Public Instruction (OSPI); and C.J. Washington, program specialist, DVTAE-OSPI; and the following project advisory committee members:

Cyndi Curran-Bamburg
Bellevue School District

Reba Gilman
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Grant Levens
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Gil Mendoza
Puyallup School District

Keith Renfrew
Renton School District

These professionals gave their time to provide suggestions for the critical issues as well as format and content of the survey instruments.

We are especially thankful to Mary Torres and Meg Whitmer. Without their editing and word processing expertise, this document simply would not exist.

Gwen Rockwell
Greg Weisenstein
Tina LaRoque

ABSTRACT

A collaborative study was conducted by the Washington State Commission for Vocational Education and the University of Washington through its Area of Special Education. Cooperative vocational education teachers and secondary special education teachers from metropolitan, urban, and rural school districts in Washington state were surveyed regarding: 1) the number of disabled youth who are enrolled in and placed on jobs from cooperative vocational education classes; 2) the perception of the barriers to the participation of disabled students in cooperative vocational education classes; and 3) vocational educators' perceptions of their own levels of implementation of practices mandated by PL 98-524 and selected practices recommended by the literature. Questions regarding barriers were also addressed to employers, parents and disabled youth who are potential students for a cooperative education classes. Six related studies investigated the relationship between enrollment and job placement outcomes for high school youth who had been assessed eligible for special education and programming practices, teacher inservice hours, and population density.

Several findings were obtained. First, disabled youth are not enrolled at the same frequency across a variety of cooperative education program areas. This population is enrolled at a higher level than expected in non-occupationally specific classes (e.g., diversified occupations) and at lower than expected levels in occupationally specific classes such as marketing, education and business and office education. The numbers of students placed from cooperative vocational education programs are at expected levels in all classes surveyed. Once disabled youth are enrolled in cooperative education classes, and successfully maintained in these classes, they can be expected to be placed in employment at nearly the same rate as their non-handicapped peers.

Programming practices mandated by public law 98-524, and those recommended by the literature, had only limited impact on vocational enrollment and employment placement of disabled students. The exception under mandated criteria were those practices related to "appropriate placement" and interdisciplinary "communication". Practices recommended in the literature which seemed to influence vocational outcomes including those related to quality of instruction and teacher confidence in working with students who are disabled. Study results also showed that there appears to be no significant impact on enrollment and employment from inservice training or variations in community population density.

Survey participants judged the following to be "inadequate/somewhat inadequate" and a barrier to participation in cooperative education classes by special education (disabled) youth: 1) number of job placements available, 2) amount of student motivation to look for jobs, 3) number of disabled youth scheduled into cooperative education classes, 4) amount of extra time available to place and coordinate disabled students, 5) amount of knowledge about special instructional strategies, 6) amount of knowledge about special

job placement strategies/employer incentives/employer training, 7) amount of interagency cooperation, and 8) quality of worker behaviors and social skills needed for the job.

Research results, analyses, and recommendations provide the basis for an intervention model designed to increase enrollment and employment of disabled youth in cooperative vocational education classes. Five core components of the model called the vocational education support team (VEST) include: (1) active recruitment, (2) guided placement, (3) continuing support, (4) job placement and follow-up, and (5) transition.

COOPERATIVE EDUCATION: A TRANSITION OPTION FOR HIGH SCHOOL YOUTH WITH DISABILITIES

A Literature Review and Empirical Study of Cooperative Education Programs in Washington State

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CHAPTER I

Introduction

Vocational education first came into legal existence in 1917 with the Smith-Hughes Act, and it was touted as the solution to a myriad of nationwide social and educational problems. Proponents felt certain that vocational education could decrease the 92% dropout rate; decrease youth unemployment; increase the power of the labor unions; increase the power of management; develop the domestic skills of women; provide specific occupational skills for "the lame," the "ne'er do wells," and the "hand-minded;" and train people for work (Kanter and Tyak, 1982). Once school became the place for youth to be, and high school attendance stabilized, vocational education critics looked at still unanswered social problems and began questionning the purpose and appropriateness of vocational education in the secondary school curricula.

The high cost of vocational education became a major issue. Then and now, vocational education's experiential nature required elaborate simulated environments that utilized extensive and expensive equipment. One answer to the escalating classroom training costs and the difficulty in keeping current with rapidly-developing technology was and continues to be cooperative education--a vocational training method that crosses all vocational program areas and places students in real-life community settings for experiential training.

The concept of cooperative education first appeared in 1906 as an alternative to the agricultural laboratories that were the core of vocational education training at that time. Although cooperative education was mandated in regulations of the Smith-Hughes Act, funding came much later in the form of the Vocational Education Amendments of 1968. Since then, cooperative education has become a popular and successful method for training and transitioning vocational education students from school to work.

Definitions

Cooperative Education

Cooperative education provides job-related instruction in a vocational education class coupled with on-the-job training where students can apply what they learn in the classroom. Written training agreements between the school and the employers as well as coordinator/teachers who monitor and evaluate student performance on the job distinguish this form of cooperative instruction from typical "work experience programs" that do not train for specific vocational goals. Cooperative education, develops occupationally-specific skills as a result of the school coursework and the work site activities. It is a truly coordinated program between the school, the student, the teacher, and the employer.

The following definition of 'cooperative education' from the Carl Perkins Vocational Education Act of 1984 will be the operational definition for this study:

> "a method of instruction of vocational education for individuals who, through written cooperative arrangements between the school and the employers, receive instruction by alternation of study in school with a job in any occupational field, but the two experiences must be planned and supervised by the school and employers so that each contributes to the student's education and to his or her employability. Work periods and school attendance may be on alternate half days, full days, weeks, or other periods of time in fulfilling the cooperative program." (Sec. 521(7)

Transition

People endure many transitions as part of everyday life. The transition from high school to post-school opportunities is complex for all individuals. Numerous follow-up studies have shown that transition from school to work for handicapped youth is minimal (Edgar, 1985, Gill, 1984). As a result, the Department of Education, Office of Special Education and Rehabilitation Services (OSERS) initiated a national emphasis that has infused nearly $20 million into local transition activities since 1984 (Education of the Handicapped, 1987). The following definition of transition will be used in this document:

> "The transition from school to working life is a outcome-oriented process encompassing a broad array of services and experiences that lead to employment. Transition is a period that includes high school, the point of graduation, additional post-secondary education or adult services, and the initial years in employment. Transition is a bridge between the security and structure offered by the school and the opportunities and risks of adult life." (Will, 1983, p. 1)

Enrollment

Enrollment data in this report describe the percent of youth with disabilities enrolled in cooperative education classes (Enrollment percentage = number of enrolled co-op students with IEPs/total number of enrollees x 100).

Employment

Employment data in this report describe the percent of youth with disabilities who are placed in competitive employment by a cooperative education teacher/coordinator (Employment percentage = number of employed co-op students with IEPs/total number of enrollees with IEPs x 100).

Youth with Disabilities

This study focuses on youth, 16-21, who are served by special education services, have Individualized Education Programs (IEPs), and are identified "handicapped" by definition in the Education of the Handicapped Act (PL 94-142) and the Amendments to the Education for All Handicapped Act (PL 99-457). The same definition is used in the Carl D. Perkins Vocational Education Act: The term "handicapped," when applied to individuals, means *individuals who are mentally retarded, hard of hearing, deaf, speech impaired,* visually handicapped, seriously emotionally disturbed, orthopedically impaired, or other health impaired persons, or persons with specific learning disabilities, who by reason thereof require special education and related services, and who, because of their handicapping condition, cannot succeed in the regular vocational education program without special education assistance (Sec. 521 (15).

Statement of the Problem

In spite of a long history of federal legislation mandating the inclusion of handicapped youth in vocational education programs, they have been partially excluded. The most current national data indicates a 3.3% enrollment of handicapped individuals across all vocational education programs (VEDS, 1983; Phelps, 1984). Enrollment in cooperative education programs ranges from .6% - 3%, averaging 1% enrollment across all co-op programs (Leske & Persico, 1984). These percentages are substantially lower than the 10-12% enrollment of disabled individuals in our schools (Bottoms and Copa, 1983; Will, 1986).

These facts raise several questions:

1) Are Washington State cooperative education classes accessible to youth with disabilities?

2) What educational practices in cooperative vocational education influence enrollment and employment of youth with disabilities?

3) What actions are needed to increase enrollment and employment of disabled youth in cooperative education classes?

Outcome Measures

Vocational education sports a myriad of outcome measures that are used to evaluate effectiveness. Wages earned, occupational competence, student satisfaction, high school graduates and dropouts, are just a few of the 27 outcomes utilized in one report on vocational education evaluation by Leske and Persico (1984). Equity outcomes are included in most evaluations, but are typically given low priority in favor of other more valued outcomes that may even conflict with equity measures (e.g., placement and cost effectiveness).

This report focuses only on equity issues and how they relate to the ENROLLMENT and EMPLOYMENT of handicapped youth in cooperative education programs.

Enrollment

ENROLLMENT in vocational education, like any other public school program is a civil right. Access must be assured. However, the need for enrollment goes beyond civil rights. If students are not enrolled in vocational education, they cannot receive the benefits from the training. If students are not enrolled in cooperative education, they cannot receive the transition from school to work opportunities available in a co-op class. Defining equitable enrollment is difficult, at best. Even so, enrollment goals should be established. Although numbers vary from district to district, over 10% of the total high school student population is handicapped (Bottoms and Copa, 1983; Will, 1986).

Employment

EMPLOYMENT is federally mandated and is the measure most commonly used to evaluate vocational education programs, especially cooperative education programs. Employment validates student competence and the ongoing need for the training programs as well. There are some obvious limitations to this outcome measure. Some situations that affect employment like size of community, community unemployment, etc., cannot be controlled by the vocational instructor. Despite these limitations, however, employment continues to be the most common measure for evaluating program effectiveness. The problem in establishing employment measures for handicapped youth is establishing a level of percent that marks success. What is acceptable for placement of secondary vocational education program completers may not be reasonable for special needs completers. If too high an employment goal is established, screening in the best of the special needs students may occur, again, favoring a more valued outcome measure than equity.

Employment goals, like enrollment goals may vary from community to community. One suggested standard is the employment percentage used by youth employment programs funded by the Jobs Training Partnership Act (JTPA). Positive termination standards for disadvantaged youth under JTPA guidelines is 50% placement. Of course, employment goals for special needs youth should be 100% placement as it is for non-handicapped youth; but a teacher should not be discouraged or a program penalized, if placement is less. Each person trained and placed on a job should be considered a significant accomplishment.

Organization of the Report

This report attempts to find answers by first isolating educational practices relevant to the problem, then studying how these practices affect enrollment and employment of disabled youth in cooperative education classes. This first step is detailed in Chapters II and III in which the relevant literature and the current criteria mandated by PL 98-524 are reviewed.

Six critical questions, answered in Chapter IV, provide the focus for the report:

Study #1 DO DIFFERENCES EXIST AMONG COOPERATIVE EDUCATION PROGRAM AREAS IN THE ENROLLMENT AND EMPLOYMENT OF STUDENTS WITH DISABILITIES?

If enrollment and employment data is class-specific, interventions will be more effective if applied specifically to low enrollment classes. Additionally, this study identifies practices utilized or not utilized by high enrollment/employment classes.

Study #2 ARE PL 98-524 MANDATED CRITERIA FOR SERVICES AND ACTIVITIES TO VOCATIONAL ENROLLEES WITH DISABILITIES INFLUENCING THEIR ENROLLMENT AND EMPLOYMENT IN COOPERATIVE EDUCATION PROGRAMS?

Local districts must assure that PL 98-524 mandated criteria are implemented in their districts before they are eligible to receive federal vocational education money. The law assumes these practices produce positive outcomes for special needs students in vocational education classes. This study determines which, if any, of the mandated criteria do, in fact, influence enrollment and employment of youth with disabilities in cooperative education classes.

Study #3 WHAT EFFECTS DO OTHER PRACTICES HAVE ON ENROLLMENT AND EMPLOYMENT OUTCOMES FOR YOUTH WITH DISABILITIES IN COOPERATIVE EDUCATION CLASSES?

The literature identifies practices other than PL 98-524 mandated criteria that produce positive outcomes for vocational education students who are disabled. This study identifies which, if any, of these additional practices influence enrollment and employment of disabled youth in cooperative education classes.

Study #4 ARE PL 98-524 MANDATED CRITERIA IMPLEMENTED IN COOPERATIVE EDUCATION EQUALLY ACROSS METROPOLITAN, URBAN, AND RURAL SETTINGS?

Metropolitan, urban, and rural settings each have unique access to educational resources and employment opportunities. This study determines how school setting affects implementation of mandated criteria as well as the enrollment and employment of disabled youth in cooperative education classes.

Study #5 WHAT IS THE EFFECT OF TEACHER INSERVICE ON THE IMPLEMENTATION OF PL 98-524 MANDATED CRITERIA AND THE ENROLLMENT AND EMPLOYMENT OF YOUTH WITH DISABILITIES IN COOPERATIVE EDUCATION PROGRAMS?

The long term effects of teacher inservice are questionable even though large sums of money continue to be spent to provide inservice for teachers. Study #5 determines what effect, if any, vocational special needs inservice has on identified positive outcomes.

Study #6 ARE THE PERCEPTIONS OF POSSIBLE BARRIERS TO DISABLED STUDENT PARTICIPATION IN COOPERATIVE EDUCATION PROGRAMS CONSISTENT ACROSS VOCATIONAL EDUCATION TEACHERS, SPECIAL EDUCATION TEACHERS, PARENTS OF STUDENTS WITH DISABILITIES, EMPLOYERS OF STUDENTS WITH DISABILITIES AND STUDENTS WITH DISABILITIES?

This study identifies perceived barriers to enrollment and employment in cooperative education classes for disabled youth. The results of this and the other five studies provide the basis for the Intervention Model, described fully in Chapter V.

CHAPTER II

Employment Problems of Individuals with Disabilities

Barriers to successful employment are encountered by almost everyone. These barriers, however, are substantial to the more than 35 million Americans who are physically or mentally disabled, or otherwise handicapped. Recent census figures point out that a greater proportion of handicapped than nonhandicapped individuals of employment age are unable to find work. A 1985 Lou Harris poll revealed that "no other demographic group under age 65 of any size has such a small proportion working" (Harris, 1986, p. 8). In 1983, 50 to 70 percent of all persons with disabilities were unemployed (U.S. Commission on Civil Rights, 1983). Additionally, handicapped individuals who do gain employment usually have lower wages; are slow to move upwards in employment; and are segregated from nonhandicapped peers (Sarkees & Scott, 1985). Of the disabled people employed prior to 1979, 85% earned less than $7,000 per year and 52% earned less than $2,000 per year (Simcol, 1979). The Lou Harris study revealed that 50% of disabled households earn less than $15,000 a year compared to 29% of comparable nondisabled households (Harris, 1986).

Complicating their employment problems, many mildly handicapped youth do not finish high school. These students, having repeatedly failed "regular," more rigorous, academic classes, are forced by diploma requirements to take math, English, and science within specially-designed special education classes. Frustrated with repetitive, often elementary-looking desk work that appears to have no application to the world outside the school structure, these high school youth leave school for what they perceive to be a more relevant education on the streets or in front of the television. In a study of 60 mildly handicapped youths in an urban setting, over 50% left high school before graduation (Zigmond & Thornton, 1985). Failure to finish high school further exacerbates the unemployment problems of handicapped youth. In a followup study, Zigmond & Thornton (1985) found only 46% of urban high school drop-outs were employed 18 months to five years after leaving school. This compared to an 80% employment rate for their graduating peers. Graduates with a vocational education background have an even higher employment rate (Korb, 1982, Campbell, 1981; Bottoms & Copa, 1983, NCRVE, 1983). In a 1982 report, Mertens, Seitz, and Cox found that "participation in vocational education, when combined with completion of high school, appears to influence the one most consistently reported problem of dropouts: unemployment," (p. 92). Keeping students in school, with a functional curriculum, including vocational education, is a first step toward developing "sound preparation in secondary school ...[and]...adequate support at the point of leaving" (Will, 1984, p. 1).

Vocational Education and Transition to Employment

Vocational education's reputation for work preparation has been one solution to the problem of high unemployment. In a 1982 study that sampled nearly one million people, the National Center for Education Statistics (NCES) determined that 71.3% of those who were enrolled in vocational programs were employed in related fields or were engaged in further education (NCES, 1982).

The placement rate in Washington State is even higher: 85.3% of those participating in secondary vocational education programs found jobs in related occupations or continued in postsecondary education programs (Washington State Advisory Council on Vocational Education, 1984). In addition, the unemployment rate for secondary vocational education graduates was 10% when general unemployment was 12% (Pedrotti, 1983). In other studies, selected cooperative education classes reported even higher employment rates and the students found their first jobs more quickly than students in general education programs (Hermstadt, 1987; Slick & Welch, 1974).

Comprehensive cooperative vocational education programs give students opportunities to develop essential worker behaviors plus practice in meeting the demands of competitive employment. In authentic work situations, students develop and integrate vocational skills into their behavioral repertoire (Herr, Dambrocia & Niles, 1986). It is not surprising, then, that 50% of those participating in cooperative education classes keep their jobs after high school (Vertrees & Quattrociocchi, 1985). Students who work part-time during high school are more likely to have jobs once they graduate and they will experience significantly lower rates of future unemployment as well (Harrell and Wertz, 1979; Hasazi, Gordon, & Roe, 1985).

Vocational Education as Transition to Employment for Handicapped Youth

Vocational education provides employment options for non-handicapped individuals. The same benefits can be realized by handicapped youth as well but only if they are included in vocational education training. Unfortunately, most reports tell us they are not.

Despite numerous legal mandates and funding mechanisms, the percent of handicapped youth in vocational education classes was 3.3% in 1983 (Phelps, 1984), still far below the estimated 10% or more enrollment of this population in our nation's schools (Bottoms & Copa, 1983; Will, 1986). Studies conducted by others report similar figures: Phelps & Lutz: 2% (1981); Benson & Hoachlander: 3.3% (1981); Greenan & Phelps: 2.56% (1982); Weisberg: 2% (1983); Smith: 3.3% (1983). Thus, even though access to vocational preparation has been mandated and, in fact, has produced a 135 percent increase in handicapped enrollment between 1971 and 1982 (Vocational Education Data System, VEDS, 1983), the intent of the mandate is still not fully realized. Only 40% of all handicapped youth participated in vocational education in 1982-83 and 35% of them were in separate, specialized programs (VEDs, 1983).

Low enrollment statistics for disabled youth are further reflected in the content of Individualized Education Programs (IEPS)--the planning documents that prescribe the "specially-designed instruction to meet the unique needs of handicapped children." (Education for All Handicapped Children Act of 1975). Vocational education involvement in IEP development is federally mandated, yet IEPs continue to lack emphasis on vocational development (Cobb & Phelps, 1983; Smith, 1983; Kayser, Rockwell, Rallo, Haring, Billingsley, White, 1986).

Even mildly handicapped youth appear not to have access to vocational education programs, workstudy, apprenticeship programs and on-the-job training. And when they do participate, they're in low-skill training programs which typically have non-occupationally-specific training goals (Cobb & Phelps, 1983; Kayser, et al., 1986).

Handicapped youth participate at even lower rates (.6-3%) in cooperative education programs in which job placement is an integral part of each class. (VEDS, 1983; Leske & Persico, 1984). Low participation rates continue even though studies indicate job placement rates for learning disabled youth are comparable to their non-handicapped peers after completion of vocational training (Smith, 1983; Horn, O'Donnell, & Vitalano, 1983). The number of disabled students participating in the most popular cooperative education classes (i.e. office occupations, marketing, and health occupations) is low, yet the highest number of jobs in the 1990's will be in the clerical and sales and service industries (U.S. Department of Labor, 1985). Access into appropriate cooperative education classes and full participation in the training must occur to ensure preparation for these jobs.

CHAPTER III

Practices That Increase Participation of Disabled Youth in Vocational Education Classes

The literature presents a number of "best practices" that purport to increase participation of youth in vocational education programs. As project staff began isolating critical practices for further study, the practices mentioned most often aligned with the mandated criteria for services and activities in Section 204 of the Carl D. Perkins Vocational Education Act of 1984 (P.L. 98-524). The law assumes that if these criteria are practiced, accessibility will be assured, and the federal money will serve its intended purpose. This series of studies attempts to determine the efficacy of these federal mandates. Although other issues are analyzed, the study focuses primarily on implementation of the PL 98-524 mandated criteria and how implementation of these criteria impact enrollment and employment outcomes for youth with disabilities in cooperative education programs.

Mandated Criteria for Services

The following is a summary of the five mandated criteria in Sec. 204 of the Carl D. Perkins Vocational Education Act (P.L. 98-524): (1) equal access will be provide to handicapped and disadvantaged individuals in RECRUITMENT, ENROLLMENT, AND PLACEMENT ACTIVITIES; (2) equal access will be provided to handicapped and disadvantaged individuals to the FULL RANGE OF VOCATIONAL PROGRAMS, including occupationally-specific courses of study, cooperative education, and apprenticeship programs; (3) vocational education programs and activities for handicapped individuals will be provided in the LEAST RESTRICTIVE ENVIRONMENT in accordance with section 612(5)(B) of the Education of the Handicapped Act and will, whenever appropriate, be included as a COMPONENT OF THE INDIVIDUALIZED EDUCATION PLAN; (4) vocational education planning for handicapped individuals will be coordinated between APPROPRIATE REPRESENTATIVES FOR VOCATIONAL EDUCATION AND SPECIAL EDUCATION; (5) each local agency shall...PROVIDE INFORMATION to handicapped and disadvantaged STUDENTS AND PARENTS of such students concerning the opportunities available in vocational education at least one year before the students enter the grade level in which vocational education programs are first generally available, but no later than the beginning of the ninth grade, together with the REQUIREMENTS FOR ELIGIBILITY for enrollment in such vocational education programs.

Title II, Part A of the Carl Perkins Vocational Education Act of 1984 sets aside 57% of each state's Basic Grant for supplemental services to handicapped individuals and other specially identified underrepresented populations* in vocational education programs. Local districts receive their federal money if they can assure that the above mandated criteria have been implemented in their vocational programs.

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* economically and academically disadvantaged; adults in need of training and retraining; individuals who are single parents or homemakers; individuals who participate in programs designed to eliminate sex bias and stereotyping; and criminal offenders.

Criteria Supported in the Literature

Much has been written about the first four criteria. Literature addressing the first two criteria has been summarized in Chapter II of this report. Clearly, past practices have not provided equal recruitment, enrollment, and subsequent placement for handicapped individuals into a wide range of vocational education classes. Nationally, this population continues to be placed, if at all, in primarily non occupationally-specific courses (See pp 17-18 of this report.). This Chapter continues the literature review of the issues addressed in criteria three and four.

Vocational Goals and Objectives on Individualized Education Programs (IEPs)

The literature abounds with many opinions and some empirical evidence about the usefulness of the IEP as an educational programming tool for secondary school aged disabled youth. As special education youngsters approach high school age, academic remediation should decrease to allow time for increased concentration on learning functional skills that prepare for life after high school. Unfortunately most high school IEPs continue to utilize elementary school objectives that address primarily academic deficits. Tenth grade is often the earliest even minimal vocational goals and objectives appear on IEPs. In 1983, Smith found that only 31.2% of a 16-21 age group had vocational or prevocational goals and objectives on their IEPs. A slightly higher percentage (40%) was found in a 1983 study of 119 IEPs (Cobb & Phelps, 1983). A 1986 study analyzed the IEPs of 81 students enrolled in a school district that housed an area vocational technical institute, a comprehensive high school with a variety of vocational education classes, and a specialized vocational program for handicapped individuals. Of 718 objectives analyzed, 24% were prevocational or vocational and none addressed participation in the district vocational opportunities (Kayser, Rockwell, Rallo, Haring, Billingsley, White, 1986). Obviously, utilization of the IEP as a vocational programming tool is minimal. PL 98-524 assumes that vocational education involvement in IEP development will positively affect enrollment and employment outcomes. Study #2 tests that assumption.

Coordination Between Vocational Educators and Special Educators

Few IEP objectives appear to specifically address vocational education placement. Yet statistics indicate that a few handicapped students are enrolled in vocational education classes. This combination of events implies another situation - the lack of program coordination between special educators and vocational educators. Greenan (1982) noted that vocational education teachers are commonly absent from IEP conferences and as a result, are probably not notified when a disabled youth is placed in their classes. Cobb and Phelps (1983) concluded this lack of appropriate placement procedures may account for the high number of disabled youth who either drop out of vocational education classes or receive grades below "C." Special educators and vocational educators talking and planning together prior to student enrollment could plan a variety of interventions designed to enable disabled youth to succeed in cooperative education classes. A forum for cooperation would also provide an opportunity for special education teachers to provide vocational education teachers with teaching strategies, and concurrently increase their own knowledge about the skills needed to successfully complete a vocational education program. Vocational assessment information could be exchanged as well. Students could then be placed based on indepth information about their skills, interests, and abilities instead of just their handicapping condition. Vocational assessment must be utilized and shared with vocational educators (Hasazi, et al., 1983; Greenan, 1982; Tindall, 1983; Cobb and Phelps, 1983).

Tindall (1983) and Gill (1986) suggest facilitating coordination between special educators and vocational educators with specially trained personnel who act as liaisons between the two. Again, the Perkins Act assumes that coordination between special educators and vocational educators will benefit youth with disabilities and mandates this practice. Studies in this report test whether this assumption is, or is not correct.

Information to Students and Parents

Criteria five is mandated and apparently represents an innovative idea. This concept is not yet addressed in the literature.

The five mandated criteria provide the core for the research in this report. Other issues identified by the project advisory committee are surveyed as well. The measures of vocational success with disabled students are enrollment and employment. Employment, the far pylon of the transition bridge, is one of the most critical issues studied.

Employer Needs

An effective transition effort includes a cooperative relationship with employers. Cooperative education, by definition has this component, yet "employer needs" are often cited as reasons why youth with disabilities are not trained in cooperative education classes. Indeed, employers want employees "who can act responsibly and [can be trained] for specific tasks" (Vantour, Stocks & Kolek, 1983, p.55), and when employers are questioned specifically about handicapped people, their responses are consistent with stereotypical issues concerning safety and constant supervision requirements (Vantour, et al., 1983; Cobb and Phelps, 1983). However, employers who hire cooperative education students (handicapped and non-handicapped) say they are more concerned with inability to follow directions on the job, rather than the presence of a handicapping condition (Vantour, et al., 1983). Study six attempts to provide an accurate picture of employer needs from employers who have experience working with disabled youth enrolled in Washington State cooperative education classes.

CHAPTER IV

Participation in Cooperative Education by Youth with Disabilities in Washington State -- Six Studies

Barriers to participation by youth with disabilities in vocational education, nationally and in Washington State, have been reasonably documented. Information is not as available, however, for cooperative education programs in which transition opportunities are greatest and enrollment by handicapped youth are lowest. The following exploratory study endeavors to provide information related to three questions about Washington State cooperative education programs.

(1) What is the percentage of enrollment and employment of youth with disabilities in cooperative education classes?

(2) What effects do the PL 98-524 mandated criteria or other promising practices, have on the employment and enrollment of youth with disabilities in cooperative education programs?

(3) What are the perceived barriers to classroom participation and subsequent job placement experienced by disabled students?

Answers to these and other questions were collected by means of self-reporting questionnaires from Washington State vocational and special educators, employers, parents of handicapped youth and the students themselves.

In addition to descriptive research related to the above questions, these questions are broken out as null hypotheses below and examined more critically.

Study #1 There is no difference in the expected enrollment and employment of students with disabilities across cooperative vocational education program areas.

Study #2 PL 98-524 mandated criteria for services and activities to disabled students have no effect on enrollment and employment of students with disabilities in cooperative education classes.

Study #3 Other "best practices" have no effect on enrollment and employment of students with disabilities in cooperative education classes.

Study #4 There are no differences in enrollment and employment of students with disabilities in cooperative education across metropolitan, urban, and rural areas.

Study #5 Teacher inservice has no effect on enrollment and employment of youth with disabilities in cooperative education.

Study #6 There is no relationship between the groups reporting and their perceptions of possible barriers to disabled student participation in cooperative education programs.

Study #6 will serve to identify perceived barriers to enrollment and employment of youth with disabilities in cooperative education classes.

Method

Subjects

The subject pool contains 70 VOCATIONAL EDUCATORS who teach cooperative education classes (e.g., advanced marketing education, diversified occupations, etc.); 24 SPECIAL EDUCATORS who place and support special education students in vocational education classes; 17 EMPLOYERS of cooperative education students who are disabled; 28 PARENTS of special education youth; and 28 mildly and moderately disabled SPECIAL EDUCATION STUDENTS who are potential students in cooperative education classes. All schools are public comprehensive high schools located in metropolitan (22%), urban (63%) and rural (15%) districts in Washington State. The non-random sample was selected in accordance with ethical standards set by the University of Washington Human Subjects Review Process.

TABLE X
Study Participants

					Inservice Training		
	(n)	% metro	% urban	% rural	% <5h	% 6-15h	% >15h
Vocational Education	70	20	61	19			
Diversified Occupations	12	0	58	42	58	8	33
Marketing Education	31	23	71	6	74	13	13
Co-op Office Education	13	31	69	0	92	0	8
Agriculture	2	0	50	50	100	0	0
Community Resource Training	1	0	0	100	100	0	0
Food	5	80	0	20	80	0	20
Special Educators	24	17	54	29	50	25	25
Parents	29	0	90	10			
Students	28	0	93	7			
Employers	17	0	82	18	76	12	12
Statewide Distribution of Co-op Classes	280	9.1	55.4	35.5			

Procedures

Vocational and Special Educators. Local school district contact was made first with Washington State school district superintendents who then gave permission for project staff to contact subjects in their districts. Of the

300 superintendents approached, 54 (18%) returned usable consent forms from districts with cooperative education classes.

Questionnaires were sent to cooperative education teachers and specially-designated high school special educators in participating districts. Returns were the result of two mailings - one in May, 1986 and a follow-up in September, 1986. Of the 111 questionnaires sent to vocational educators, 70 (63%) usable returns were received, representing 25% of the cooperative educators in the state. Twenty-four (24) special educators returned usable questionnaires. A few educators confused "cooperative education" with other work experience and work study programs in their schools. Returns that obviously referred to work training other than reimbursable vocational education cooperative education programs were not included in the study.

Employers. Employers representing occupations in services; wholesale/retail; and communication/transportation were suggested by vocational educators participating in the study. All employers had recently hired and supervised special education students.

Project staff contacted 17 employers who responded either by questionnaire or by phone. Both phone calls and mail surveys contained identical questions.

Parents and Students. Parents were contacted in selected districts where both vocational and special educators returned usable questionnaires. Project staff chose districts where returns implied high interdisciplinary interest in the study since the parent/student portion of the study was somewhat intrusive on special educators (parents are required to be contacted first by district personnel).

Questionnaires were sent to 379 parents whose children would "most likely be scheduled into regular vocational education classes." Twenty-nine (8%) usable surveys were returned with permission to contact their children. Follow-up questionnaires and phone calls were not conducted.

Instrumentation

The original purpose of the study was to identify the Barriers to Participation of disabled youth in cooperative education classes. As the research design was fine-tuned, it became clear that other information was needed. Baseline Data describing scheduling procedures, numbers of students in classes, numbers placed in employment, where the students worked, the nature of their work, hours of employer and teacher training, etc., were appraised as well. A Baseline Survey of selected classroom practices was also included, utilizing a Likert-type 1-4 scale: 1) SELDOM - 0-25%; 2) SOMETIMES - 25-50% of the time; 3) OFTEN - 50-75% of the time; and 4) USUALLY - 75-100% of the time (See questionnaires, Appendix A).

Questionnaire items for the Barriers to Participation Survey were selected from barriers identified in the literature review, criteria mandated in PL

98-524, and suggestions from the project advisory committee who pretested the instruments and reviewed them for face validity.

All subjects, except the students, responded to the items by deciding the significance of a barrier, using a Likert-type 1-4 scale: (1) significant barrier (2) probable barrier (3) possible barrier, (4) no barrier. Student responses were simplified to "Yes, No, I Don't Know."

All forms measured readabilities ranging from grade 5 for students to grade 10 for the teachers. Teachers, employers, and parents completed forms personally or by phone. Student questionnaires were read to them by their teachers.

Validity and Reliability. All questionnaires were reviewed, revised and judged valid by the project advisory committee and other professionals in the field of vocational special needs. Additionally, each questionnaire was field-tested by selected students, employers, parents, and teachers not participating in the study. Test/retest responses were found congruent at 98% reliability. The questionnaires were therefore presumed to be valid and reliable for use in the study.

All surveys were evaluated and coded for data entry. Since three different coders over a six month period evaluated the surveys, intercoder reliability was checked. Coder C evaluated and tested the surveys coded earlier by Coders A and B. Coding was found to be 95-98% congruent. Random accuracy checks of data entry assured high accuracy in the input of all data.

Six Studies

Study #1 - DO DIFFERENCES EXIST AMONG COOPERATIVE EDUCATION PROGRAM AREAS IN THE ENROLLMENT AND EMPLOYMENT OF STUDENTS WITH DISABILITIES?

The second mandated criteria in Section 204 of the Carl Perkins Vocational Education Act states that "handicapped youth will be provided access to the full range of vocational programs, including occupationally-specific programs, cooperative education..." Table 1A summarizes the ENROLLMENT figures found in the study. Diversified occupations (DO), which is not occupationally specific, has the highest percentage (7.6%) of enrollment of students with disabilities. Other occupationally specific classes follow with significantly lower enrollment figures. Over half of the marketing and business education classes do not have any students with disabilities enrolled at all.

TABLE 1A
Enrollment of Youth in Cooperative Education

Vocational Classes	Classes (n)	Total Stds. (n)	Total Disabled (n)	% Disabled 1986	% Disabled 1983*
Diversified Occupations (DO)	12	433	33	7.6	**
Marketing Education (ME)	30	1395	32	2.2	2.2
			(15 classes)		
NOTE:	57% of the classes had NO handicapped students				
Coop Office Education (COE)	13	211	4	1.9	1.8
			(3 classes)		
NOTE:	69% of the classed had NO handicapped students				
Agriculture (Ag)	2	138	8	5.8	3.7
Community Resources Training (CRT)	1	2	0	0	**
Food	5	164	5	3.0	6.1
TOTAL	63	2343	82	3.5	3.5

* Vocational Educaton Data System (VEDS)
1983 - the most recent national data

** no national data

Table 1B summarizes the employment figures found in the study. The EMPLOYMENT percentages in all classes except food programs was lower for students with disabilities, but only 10% lower than the employment percentages for all students enrolled in the programs.

TABLE 1B
Employment of Youth in Cooperative Education

Vocational Class	All Students			Disabled Students		
	Enr.	Emp.	% Emp.	Enr.	Emp.	% Emp.
Diversified Occupations	433	364	84	33	23	75
Marketing Education	1395	1018	73	32	21	67
Co-op Office Education	211	200	95	4	3	83
Agriculture	138	73	53	8	1	50
Food	164	138	84	5	5	100
TOTAL	2341	1793		82	50	

Null Hypothesis A: There is no difference in the expected enrollment of students with disabilities across cooperative education program areas.

Procedure. A chi-square "goodness of fit" test was used to analyze the enrollment figures. This test involves a comparison of the observed enrollment figures to the expected enrollment figures.

Analysis. A chi-square analysis was conducted. The significance level at < .05 is 11.07 and at < .01 is 15.09 with 4 df.

TABLE 1C
Enrollment of Students with Disabilities by Cooperative Education Program Area

	DO	ME	COE	AG	FOOD
Expected	15.17	48.86	7.39	4.83	5.74
Observed	33.0	32.0	4.0	8.0	5.0

X^2: $(4, N = 82) = 30.51, p < .01$

Results. The X^2 of 30.51 enables a rejection of the null hypothesis, statistically showing a significant difference among the enrollment figures of the co-op education programs at the < .01 significance level.

Discussion. A significant difference exists in the enrollment of students with disabilities among the cooperative vocational education programs. The academic demands of the occupationally specific programs, including the demands of the prerequisite classes appear to prevent students with disabilities from enrolling in these programs. Diversified occupations (DO) is not occupationally specific; tends not to be as academically rigorous; and can accommodate students who are undecided about a career path or those who need career awareness/exploration activities. Students with disabilities often fall into this category. Therefore, one would expect to see higher enrollment percentages in diversified occupations.

Recommendations. Support services, such as tutoring, modified curriculum, assistance from aides, etc., could be used to support students in the more academically demanding courses. Additionally, inservice and support from special educators could help vocational educators learn and utilize special instructional and placement techniques to assist students with disabilities in their classes. Prevocational training may also be required. Recruitment for classes with low enrollments could be strengthened by targeting students with disabilities who have the interest and potential for success in those classes.

Null Hypothesis 2: There is no difference in the expected employment of students with disabilities among cooperative vocational programs areas.

Method and Procedure. A chi-square "goodness of fit" test was used to analyze the enrollment figures. This study involves a comparison of the observed enrollment figures to the expected enrollment figures.

Analysis. A chi-square analysis was conducted. The significance level at < .05 is 11.07 and at < .01 is 15.09 with 4 df (See Table 1.0).

TABLE 1D
Employment of Students with Disabilities by Cooperative Education Program Area

	DO	ME	COE	AG	FOOD
Expected	20.12	19.51	2.44	4.88	3.05
Observed	23.0	18.0	3.0	1.0	5.0

X^2: (4, N = 50) = 4.99, $p < .01$

Results. The X^2 of 4.99 enables an acceptance of the null hypothesis, statistically showing that a difference does not exist in the employment figures among the cooperative education program areas.

Discussion. The statistical analysis supports the null hypothesis. No differences exist in the employment of students with disabilities among the cooperative vocational education program areas. This leads one to speculate that once the students with disabilities are enrolled and maintained in the class, placement in competitive employment follows at nearly the same placement rate as nondisabled youth.

Recommendations. Positive placement results are apparent, and while 100% employment should be the goal of every cooperative education class, current placement figures are acceptable, and disabled youth benefit from the placement opportunities in a cooperative education class. Of course, placement efforts should not overshadow attention to student interests and abilities when placement in competitive employment occurs. Worker/employer satisfaction must be ensured.

Study #2 - ARE CRITERIA (PROCEDURES) MANDATED BY PL 98-524 AFFECTING THE PROVISION OF SERVICES TO STUDENTS WITH DISABILITIES IN COOPERATIVE VOCATIONAL EDUCATION PROGRAMS?

Rationale

Criteria which are mandated in PL 98-524 represent practices which are expected to improve outcomes of vocational education as it is applied to students with disabilities. These criteria are based on what experts perceive to be best, or necessary, practices for disabled students to be served effectively in vocational education. Criteria have not undergone close examination as to their actual contributions to increasing the enrollment of students with disabilities in vocational education, or the job placement of these students resulting from their participation in vocational education. Since these criteria are mandated by law, considerable time and resources should be devoted to their implementation. Therefore, it is important to know whether program practices reflecting these criteria are having a positive impact on the participation of students with disabilities in vocational education.

The current study was undertaken as a pilot examination of the relationship between mandated criteria (program practices) in PL 98-524 and two outcome measures of the effectiveness of vocational education: disabled student enrollment in vocational education and disabled student employment resulting from participation in vocational education. In addition, the general level of implementation of mandated criteria across selected vocational program areas in cooperative vocational education where assessed.

Criteria mandated by PL 98-524 were identified and have been discussed in an earlier section of this document. These criteria represent basic assumptions about the elements of a quality vocational education program for students with disabilities. These assumptions were tested in the following research:

Procedures

A combination of one to three items corresponding to each of the five mandated criteria were included in the "baseline" section of the vocational educators survey. This section required the respondent to assess his/her perceived level of implementation of certain practices as occuring seldom, sometimes, often, or usually. Definitions of certain terms and items were provided to study participants to help insure their understanding of terminology and to increase their response accuracy. The return rate for this subgroup of vocational educators was 70 (63%) out of 111. Returns were not distributed equally across the various vocational program areas represented in the study.

Frequency of responses for each item across the four response options were computed and mean and standard deviation scores determined for each item. Mean and standard deviation scores were also computed for groupings of cooperative vocational educators who fell into the following three categories: high enrollment of disabled students, low enrollment of disabled students, and no enrollment of disabled students. Assignment of respondents (vocational educators) to these categories was based on the current percentage of handicapped student enrollment in classes taught by sample population. High enrollment was represented by percentages that were equal to or above the state average for enrollment of disabled students in vocational education programs (   ). Respondents assigned to the low enrollment category were below the state average and those falling into the no enrollment category reported having no disabled students in their classes at the present time.

Respondents from vocational education were also grouped into two categories representing programs experiencing high employment of disabled students and those experiencing low employment percentages of disabled students. Disabled student enrollment percentages and employment percentages serve as outcome measures indicating the level of program success with disabled students.

In an effort to determine the possible effects of criteria mandated by PL 98-524 on the two outcome measures of enrollment and employment, one way analysis of variance procedures were utilized. As a post-hoc analysis procedure, the Scheffe test was selected to determine which groups within the one way analysis of variance had produced significant differences, if these differences were found.

Results

Results of the data analysis are reported separately for each of the following Null hypothesis.

Null Hypothesis A: Mandated Procedures (Criteria) from PL 98-524 are not being implemented similarly across cooperative vocational education program areas.

As mentioned previously, survey returns from vocational educators were not distributed equally across program areas. While returns from most program areas were sufficient to provide a representative sample, two areas had only one and two returns. These areas (CTR and Agriculture) were dropped from this portion of the analysis. Therefore, four cooperative vocational program areas were included in this portion of the study (DO, HE, BE/COE, and Food).

The general level of implementation of mandated criteria was found to be very low across all cooperative vocational areas. Mean scores for all respondents on items such as involvement in the IEP development was below X=1.50 (seldom to sometimes). This suggests that cooperative vocational educators are seldom involved in the IEP process. Other mandated criteria were implemented more frequently but still usually less than the "often" category. While involvement in the IEP process was low across all program areas, other mandated criteria were implemented differentially across these areas. Readers are referred to mean and standard deviation scores obtained on mandated criteria for each of the four cooperative vocational program areas in Figure 2A.

TABLE 2A
Mandated Criteria and Vocational Education Program Areas

		DO (N=9)		ME (N=27)		BE/COE (N=10)		FOOD (N=5)	
		M	SD	M	SD	M	SD	M	SD
1.[a]	Participate in IEP/MDT meetings	1.0	0.0	1.26	.59	1.0	0.0	1.0	0.0
2.[a]	Invited to participate in IEP/MDT meetings	1.33	.50	1.33	.73	1.0	0.0	1.0	0.0

3.[a]	Provide vocational goals/ objectives for IEPs	1.55	.73	1.52	.97	1.09	.30	1.0	0.0
4.	Communicate with special education/resource/study skills teachers about the handicapped students in my class	2.89	1.05	2.51	1.05	1.73	.90	2.40	.55
5.	Adapt and modify materials for handicapped students in my class	2.44	.73	2.07	.98	1.50	.85	1.80	.45
6.	Work with DVR and DDD in providing transition services for the handicapped students in my class	1.11	.33	1.07	.27	1.00	0.0	1.00	0.0
7.	Confident about working with the handicapped students in my class	3.33	.87	2.51	.97	1.9	1.10	2.4	.54
8.	Handicapped students participate in classroom activities	3.55	.53	2.69	1.04	2.00	1.15	2.20	.84
9.	Utilize volunteers/ tutors/aides	2.22	1.09	1.8	1.05	1.67	1.12	1.6	.55
10.	Modify grading procedures	2.22	.97	2.14	.99	1.7	1.06	2.2	.45
11.	Disucss the special needs of my handicapped students with my advisory committee	1.78	1.30	1.53	.90	1.1	.32	2.0	.71
12.[a]	Handicapped students are placed appropriately into my class*	2.89	1.05	2.14	1.06	1.6	.70	1.8	.84
13.	Modify the physical environment for the handicapped students in my classroom	2.37	1.51	2.03	1.058	1.87	1.13	2.0	.71
14.[a]	Communicate to counselors and special education teachers the skills necessary to participate in my vocational class*	3.22	.83	2.93	.86	2.1	1.20	3.0	.71
15.[a]	Assist special educators in developing appropriate prevocational activities	2.33	1.32	1.79	1.17	1.8	1.13	1.6	.55
16.[a]	Parents of handicapped students receive information about my cooperative vocational education program	2.00	1.11	1.75	.89	1.8	1.03	1.0	0.0
17.[a]	Students in special education receive information	2.75	1.17	2.25	.94	1.6	1.07	2.2	.45

Note: AG and CRT were dropped because of low returns. Item #8 is not scaled on a 1-4 point scale.

[a] Practices that correspond to PL 98-524 mandated criteria

* Significant at $p < .05$
** Significant at $p < .01$

To test the hypothesis of no difference in implementation levels across program areas, a one way analysis of variance was used. This analysis showed that across most items representing mandated procedures (criteria) their was no difference between vocational program areas in their reported implementation of these procedures. Significant differences were obtained ($p < .05$) for items twelve (handicapped students are placed appropriately into my class) at $p = .04$ and item fourteen (communicate to counselors and special education teachers the skills necessary to participate in my vocational class) $p = .05$ with $df = 50$. Using the Scheffe procedure, significant group differences on items 12 and 14 were not obntained at the .05 level. Although statistically significant differences were not obtained for these items, visual inspection of mean scores in both cases showed instructors in diversified occupations as reporting more frequent implementation of items 12 & 14 than was reported by the other three vocational program areas. Visual inspection of the other survey items representing mandated criteria also suggested that diversified occupations instructors were implementing criteria represented by these items at a higher level than were the other vocational program areas represented in the study. While a visual inspection of these data is interesting, readers should be cautioned that statistically significant findings were not obtained to support a rejection of the Null hypothesis for three out of the five mandated criteria. Differences in mean and standard deviation scores between program areas found on items other than 12 & 14 may simply have occured by chance and should not be construed as an indication of major differences between the program areas studied. Therefore, the Null hypothesis is rejected only for criteria represented by items 12 and 14. Readers should also be reminded that statistically significant differences were found for items 12 & 14 because of implementation variations across all four vocational program areas. The post-hoc procedure (Scheffe analysis) did not show that any one program area was significantly divergent from the others.

Null Hypothesis 3: The implementation of procedures mandated by PL 98-524 have no effect on the enrollment of students with disabilities in cooperative vocational education programs.

A one way analysis of variance was used to determine whether assignment of classrooms (instructors) to the category of high, low, or no enrollment of students with disabilities was influenced by their level of implementation of PL 98-524 criteria. The results of this analysis showed that most criteria did not seem to have any significant impact on the numbers of disabled students who are currently enrolled in cooperative vocational programs. Items which did produce significant differences were those addressing communication and placement procedures. These criteria found to be related to enrollment groups were significant beyond the p = .01 level (df = 52-54). These PL 98-524 criteria were represented by items 12 (f prob. = .009) and item 14 (f prob. = .0081). Item 12 asked whether "handicapped students are placed appropriately into my class and item 14 asked whether the instructor "communicates to counselors and special education teachers the skills necessary to participate in my vocational class."

The Scheffe post-hoc analysis procedure was used to detect differences which might exist between each of the enrollment groups in the implementation of selected criteria found in the one-way analysis of variance. Enrollment group differences significant at the p=.05 level or beyond were detected for both items 12 and 14. In each case, high enrollment instructors reported significantly greater implementation of criteria on these items then did instructors who were currently enrolling low numbers of, or no, students with disabilities. High enrollment instructors reported significantly higher appropriate placements of disabled students into their classrooms than did instructors who reported low or no enrollment of these students. High enrollment instructors also communicated more frequently with counselors and special education personnel (item 14) than did low enrollment and no enrollment instructors. The differences between high and no involvement instructors was significant beyond the p=.05 level.

TABLE 2B
Mandated Criteria and Enrollment of Diabled Students

		HIGH INV		LOW INV		NO INV	
		M	SD	M	SD	M	SD
1.[a]	Participate in IEP/ MDT meetings	1.06	.24	1.38	.74	1.14	.44
2.[a]	Inivited to particpate in IEP/MDT meetings	1.24	.44	1.38	.74	1.27	.78
3.[a]	Provide vocational goals/ objectives for IEPs	1.47	.87	1.63	.92	1.23	.68
4.	Communicate with special education/resource/study skills teachers about the handicapped students in my class	2.94	.90	2.50	.53	2.07	1.05

5.	Adapt and modify materials for handicapped students in my class	2.27	.88	1.75	.71	1.93	.91
6.	Work with DVR and DDD in providing transition services for the handicapped students in my class	1.06	.24	1.00	0	1.10	.31
7.	Confident about working with the handicapped students in my class	2.88	.96	2.50	1.20	2.43	1.01
8.	Handicapped students participate in classroom activities	3.20	.77	3.13	.99	2.37	1.13
9.	Utilize volunteers/tutors/aides	1.56	.73	2.00	1.20	1.96	1.09
10.	Modify grading procedures	2.63	.81	1.63	.74	1.87	.97
11.	Discuss the special needs of my handicapped students with my advosory committee	1.75	1.06	1.88	1.25	1.31	.60
12.[a]	Handicapped students are placed appropriately into my class	2.94	.85	1.75	.71	1.83	1.02
13.	Modify the physical environment for the handicapped students in my in my classroom	2.27	1.28	2.00	1.07	2.00	1.05
14.[a]	Communicate to counselors and special education teachers the skills necessary to participate in my vocational class	3.38	.62	3.00	.76	2.51	1.00
15.[a]	Assist special educators in developing appropriate prevocational activities	2.06	1.24	1.63	1.19	1.81	1.08
16.[a]	Parents of handicapped students receive information about my cooperative vocational education program	2.00	.89	1.38	.74	1.65	.95
17.[a]	Students in special education receive information	2.50	1.21	2.14	.90	1.97	.89

[a] Practices that correspond to PL 98-524 mandated criteria

Null Hypothesis C: The implementation of criteria mandated by PL 98-524 have no effect on the percentage of students with disabilities who are placed from cooperative vocational education into competitive employment.

Again, a one-way analysis of variance procedure was used to test whether the implementation of mandated criteria influenced the placement of cooperative vocational education instructors into one of two categories: Instructors who placed high percentages of students with disabilities and those who placed low percentage. The results of the analysis of variance showed the hypothesis to be correct in that the level at which instructors are implementing mandated criteria have no effect on the percentage of students with disabilities who are placed from cooperative vocational education classes into competitive employment. Apparently, once students are enrolled in a cooperative vocational education program, and are successfully maintained in those programs, they have an equal chance of being placed in employment regardless of their instructor's adherence to procedures mandated by PL 98-524.

TABLE 2C
Mandated Criteria and Employment of Disabled Students

	Criteria Items	Employment Groupings			
		HIGH (N = 14)		LOW (N = 6)	
		M	SD	M	SD
1.[a]	Participate in IEP/MDT meetings	1.07	.27	1.33	.82
2.[a]	Invited to participate in IEP/MDT meetings	1.21	.43	1.5	.84
3.[a]	Provide vocational goals/objectives for IEPs	1.72	.99	1.5	.84
4.	Communicate with special education/resource/study skills teachers about the handicapped students in my class	2.93	.92	3.0	0
5.	Adapt and modify materials for handicapped students in my class	2.38	.77	1.67	.82
6.	Work with DVR and DDD in providing transition services for the handicapped students in my class	1.07	.27	1.0	0
7.	Confident about working with the handicapped students in my class	3.23	.73	2.0	1.10
8.	Handicapped students participate in classroom activities	3.25	.62	2.83	1.17
9.	Utilize volunteers/tutors/aides	1.84	.99	1.67	1.03
10.	Modify grading procedures	2.54	.78	2.17	.75
11.	Discuss the special needs of my handicapped students with my advisory committee	2.31	1.18	1.33	.82
12.[a]	Handicapped students are placed appropriately into my class	2.92	.86	2.33	1.03
13.	Modify the physical environment for the handicapped students in my classroom	1.83	1.19	2.67	1.21
14.[a]	Communicate to counselors and special education teachers the skills necessary to participate in my vocational class	3.38	.65	3.5	.55
15.[a]	Assist special educators in developing appropriate prevocational activities	2.00	1.22	2.5	1.38

16.[a]	Parents of handicapped students receive information about my cooperative vocational education program	1.92	1.04	1.5	.84
17.[a]	Students in special education receive information	2.67	.98	2.33	1.21

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[a] Practices that correspond to PL 98-524 mandated criteria

Conclusions/Recommendations

Overall, cooperative vocational education instructors appear to be implementing criteria mandated by PL 98-524 at a very low level. Although these criteria are required by law as "best practices," they are generally being ignored by the education community. The reasons for this low level of implementation are unclear but could likely include the following: lack of implementation time since the law was passed and regulations written, a general failure to provide knowledge and skills related to mandated criteria in preservice vocational teacher preparation, lack of opportunity and/or failure to address mandated criteria through teacher in-service, and a lack of school district and statewide monitoring of mandated criteria. These suggested reasons for low implementation are purely speculative, but certainly deserve further investigation if the levels of implementation of mandated criteria continue to be unacceptably low.

Criteria which has been mandated in PL 98-524 represents best practices for effective integration of disabled students into vocational education programs. However, these practices are generally based on the opinion of experts and the experience of the field which has not been fully evaluated. Therefore, these best practices mandated by law have to this point represented assumptions about what we as a field believe to be important for the successful education of disabled students in vocational training programs. These assumptions have yet to be evaluated as having a positive impact upon this type of education for disabled students. The findings of the current research suggest that some of the criteria mandated by PL 98-524 do, in fact, affect positive outcomes for vocational education as measured by enrollment and employment of disabled students. Other mandated criteria were found not to have any influence on these outcomes. For example, it does not appear to be necessary for cooperative vocational education teachers to participate in the IEP process as long as there is communication between the vocational education teacher and those responsible for disabled student placement. That is, if the vocational teacher perceives this communication to be good and disabled student placements to be appropriate, they respond by accepting larger numbers of disabled students into their courses.

The current research raises questions about the relationship between criteria mandated in PL 98-524 and the desired outcomes for disabled students in cooperative vocational education program. Because these questions have been raised about the validity of selected criteria, additional research is needed to determine which criteria are necessary to insure the affective integration of disabled students into vocational education and how best to encourage the implementation of those criteria.

The major challenge to cooperative vocational education educators appears to be the enrollment of disabled students into their programs. These enrollment levels were found to be unacceptably low in other studies within this project. However, once disabled students are enrolled, and successfully maintained, in cooperative vocational education programs, they are nearly as successful in employment as are nondisabled cooperative education students. As reported in other sections of this document, disabled students are employed through cooperative vocational education involvement at almost the same levels as their nondisabled peers. The employment rates of disabled students also do not appear to be influenced by their teachers implementation of criteria mandated by PL 98-524. Although some of these criteria do influence whether disabled students have an opportunity to participate in cooperative vocational education, once enrolled and successfully maintained in the program, these students are quite successful in competitive employment.

Study #3 - ARE SELECTED PROCEDURES (PROMISING PRACTICES) FOR DELIVERING VOCATIONAL TRAINING AFFECTING THE PROVISION OF SERVICES TO STUDENTS WITH DISABILITIES IN COOPERATIVE VOCATIONAL EDUCATION PROGRAMS?

Study 3 is similar to the preceeding study (study #2) in that it was undertaken to determine the effects of certain promising educational practices on the involvement of disabled students in cooperative vocational education. Unlike study 2, the current study is focused on practices which are not mandated in PL 98-524, but which are cited in the literature as contributing positively to the success of disabled students in vocational education classes.

Rationale

The literature related to special needs vocational education is primarily comprised of model program descriptions, position papers addressing contemporary issues, or opinions of (experts) on topics where little information is available. Much less frequently, the literature contains recommendations which are based on empirical evidence. Although rarely data based, certain recommendations for programs serving special needs students are repeatedly found in the literature. These recommendations have served to form a basis for the development of new programs and for the evaluation of existing programs. Authors cited in earlier sections of this document have noted these practices as being essential to programs that are effective with students who are diasbled. As in the case of practices mandated in PL 98-524, these recommendations have not undergone close examination as to their actual contributions to improved vocational programming for students with disabilities. The practices are based on what experts preceived to be important for disabled students to be served effectively in vocational education. The current study was undertaken in an effort to determine if these selected practices do in fact have a positive impact on two outcome measures of the effectiveness of vocational education: disabled student enrollment in vocational education and disabled student employment resulting from participation in vocational education.

Procedures

Procedures which were noted consistently in the literature as important practices in vocational education for students with disabilities were identified. Earlier sections of this document discuss these practices and provide readers with the source of their identification. Questions concerning the implementation of these practices were then developed and included in the "baseline" section of the vocational educators survey. Each practice was represented by at least one item, or as many as three items, on the survey. The "baseline" section of the survey required the respondent to assess his/her preceived level of implementation of selected practices as occuring seldom, sometimes, often, or usually. Definintions of certain terms and items were provided to study participants to help ensure their understanding of terminology and to increase their response accuracy. Since mandated criteria and the selected practices in study 3 were included on the same survey, the return rate for study 2 and study 3 were identical at 63% (70 respondence out of a possible 111). Also, as in the case of study 2, returns were not distributed equally across the various vocational program areas represented in this study. Procedures used to analyze data from respondents were identical to that used in study 2. In an effort to avoid redundancy, these procedures are not repeated here and readers are referred to the procedures section under study 2.

Results

Results of the data analysis are reported separately for each of the two Null Hypothesis under study 3.

Null Hypothesis A: The implementation of selected procedures have no effect on the enrollment of students with disabilities in cooperative vocational education programs.

A one-way analysis of variance was used to determine whether assignment of classrooms (instructors) to the category of high, low, or no enrollment of students with disabilities was influenced by their level of implementation of selected practices. The results of this analysis showed that most selected practices did not seem to have any significant impact on the numbers of disabled students who are currently enrolled in cooperative vocational programs. Items which did produce significant differences were as follows: Item 4 (f prob.=.01; df=52), Item 8 (f prob.=.02; df=52), and Item 10 (f prob.=.01; df=52). Each of these items found to be significant reflect procedures which are related to the quality of instruction for disabled students in the classroom. Other selected procedures were not found to be significant at or beyond the .05 level.

The Scheffe post-hoc analysis procedure was used to detect differences which might exist between each of the enrollment groups in the implementation of selected procedures. Enrollment group differences significant at or beyond the .05 level were detected only for item 10 (modifying grading procedures). In this case, high enrollment instructors reported significantly greater implementation of this procedure than did instructors who were currently enrolling low numbers of, or no, students with disabilities. Several practices thought to be important for the enrollment of disabled students into vocational education did not seem to effect enrollment in this study. However, readers are cautioned that because of the general low level of implementation of selected practices enrollment differences related to these practices may not have been detected in this study. Also, this study does not claim to judge the quality of implementation that is reported by respondents. While these factors make the results of this study somewhat tentative, the results do point to the need for further research to validate practices which the field has assumed are related to the delivery of quality vocational services for students with disabilities.

Null Hypothesis B: The implementation of selected practices have no effect on the percentage of students with disabilities who are placed from cooperative vocational education into competitive employment.

A one-way analysis of variance was used to test whether the implementation of selected practices affected the placement of cooperative vocational education instructors into one of two categories: instructors who place high percentages of students with disabilities and those who place low percentages. The results of the analysis of variance showed the hypothesis to be correct in that no significant differences were found in the placement of instructors into high or low employment categories resulting from their implementation levels of selected practices. A single exception to this finding was item 7, "I feel confident about working with disabled students in my class", with high percentage placement instructors indicating that they felt confident about working with the handicapped (mean = 3.23) far more frequently than did low percentage instructors (mean = 2.00). This finding was significant beyond the p = .05 level (f prob. = __, df = 54). Frequency of implementation of other selected procedures was not found to produce significantly different distributions of instructors to high and low employment placement groupings.

Again, readers are warned that the low general implementation level of selected procedures may have resulted in the masking of actual differences in student employment which resulted from the utlization of these practices. Nevertheless, the fact that an important outcome variable for vocational education (employment) did not seem to be influenced by the practicing of selected procedures. While tentative, this finding should stimulate concern among researchers to validate these selected practices as having a positive influence on vocational programming for disabled students.

Conclusions/Recommendations

Cooperative vocational education instructors reported that they were implementing the selected procedures studied in this investigation at a very low level. Like criteria required by PL 98-524, the preferred practices, as recommended by the literature, are generally being ignored by the education community. The reasons for this low level of implementation are most likely the same as those given earlier for mandated criteria: that is, lack of implementation time since the literature has began providing specific recommendations for integrating disabled students into vocational education, a general failure to provide knowledge and skills related to selected procedures in preservice vocational teacher preparation, lack of opportunity and/or failure to effectively address selected procedures through teacher inservice, and a lack of encouragement and/or incentives from school districts and the state for cooperative vocational education teachers to implement preferred practices. Realizing that these reasons are speculative, professionals are encouraged to further investigate reasons for low levels of implementation of preferred practices.

The preferred practices studied in this investigation have yet to be validated as having a positive impact on the vocational outcomes of disabled student enrollment and employment. These practices, like those mandated by PL 98-524, are generally based on the opinion of experts and the experiences of individuals in the field. The only procedure found to influence high employment placement of disabled students was the vocational teachers confidence level about working with handicapped students in their classroom. While not a procedure in itself, this item does reflect a combination of preceived competence level, skill level, and knowledge about disabled populations which leads to teacher comfort in working with disabled students. Later studies reported in this document do suggest that certain forms of teacher inservice may produce this feeling of teacher comfort and confidence in working with students who are disabled. Further, these studies suggest that this confidence level may be acquired without significant gains in teaching skill or knowledge levels. In short, inservice teacher education may be valuable in increasing vocational teacher confidence in working with disabled populations and, therefore, lead to improved programming and placement for this group of students. While the findings of this study do not completely justify this conclusion, they do suggest strongly that the effects of teacher confidence (and the effects of inservice on this confidence) should be investigated more closely.

Because preferred practices found in the literature have not clearly produced positive outcomes for disabled students in cooperative vocational education in this study, an effort to determine truly effective practices should become a priority of the field.

Study #4. ARE PL 98-524 MANDATED CRITERIA IMPLEMENTED IN COOPERATIVE EDUCATION EQUALLY ACROSS METROPOLITAN, URBAN, AND RURAL SETTINGS?

Discussions about the effects of population density on educational service delivery usually focus on the problems in rural communities where resources are less. Smaller staffs have fewer materials, more preparations, less schedule flexibility, all resulting in fewer available hours to place students on jobs. In addition, community employers offer fewer opportunities for a variety of entry-level positions. Convenient transportation to/from the jobs may be a problem for students as well.

Urban and metropolitan areas on the other hand, have larger staffs, more support services (counselors, aides, etc.) and greater access to additional financial resources resulting from greater numbers of at-risk youth eligible for supplemental services. Taking all of this into consideration, it would seem that differences should logically exist in the employment outcomes of special needs students in rural versus urban vocational education programs. Required mandates would appear to be more difficult to implement in rural areas as well. Study #4 tests these assumptions in Washington State cooperative education programs.

Null Hypothesis A: There is no difference in implementation of PL 98-524 mandated criteria across Washington State urban, metropolitan, and rural cooperative education programs.

Procedure. This study contains 68 Washington State districts divided into three population densities. Metropolitan districts are part of the three largest urban conglomerates - Seattle, Spokane, and Tacoma. Urban and rural districts are further defined by areas with more than 5000 people and areas with fewer than 5000 people. Table 4 shows the population densities of the study sample and the population densities of the total state districts with cooperative education programs.

TABLE 4A
Population Density

	Metro		Urban		Rural	
	(N)	%	(N)	%	(N)	%
Study Sample	15	22.1	43	63.2	13	19.0
Statewide Total	25	9.1	153	55.4	98	35.5

Since PL 98-524 pertains to practices in vocational education programs, only vocational educator responses were utilized in Study #4. Self-identified implementation of mandated practices were recorded on a Likert-type scale in terms of NUMBER OF TIMES/PERCENTAGE OF TIME/NUMBER OF STUDENTS; 1) SELDOM less than 25%; 2) SOMETIMES 25-50%; 3) OFTEN 50-75% AND 4) USUALLY 75-100%. Table 4B shows the mean scores of practices in metropolitan, urban, and rural population densities.

TABLE 4B
Population Density and Responses to Current Practices

Poplation Density: VOCATIONAL CLASSES (n)	METRO 14-15		URBAN 27-31		RURAL 9-12	
	M	SD	M	SD	M	SD
1.[a] Participate in IEP/MDT meetings	1.07	.27	1.22	.56	1.08	.29

2.[a]	Invited to participate in IEP/ MDT meetings	1.07	.26	1.32	.70	1.42	.90
3.[a]	Provide vocational goals/objectives for IEPs	1.07	.26	1.52	.93	1.42	.79
4.	Communicate with special education/ resource/study skills teachers about the handicapped students in my class*	1.87[b]	.92	2.71[b]	.90	2.17	1.11
5.	Adapt and modify materials for handicapped students in my class	1.57	.65	2.17	.95	2.17	.94
6.	Work with DDD in providing transition services for the handicapped students in my class	1.07	.26	1.06	.25	1.17	.39
7.	Confident about working with the handicapped students in my class	2.47	.83	2.57	1.10	3.0	.85
8.	Handicapped students participate in classroom activities	2.27	.88	2.97	1.05	3.08	1.16
9.	Utilize volunteers/ tutors/aides	1.79	1.12	1.83	1.00	1.91	.94
10.	Modify grading procedures	1.80	.68	2.20	1.06	2.17	1.11
11.	Discuss the special needs of my handicapped students with my advisory committee	1.47	.64	1.66	.97	1.33	.89
12.[a]	Handicapped students are placed appropriately into my class	1.87	.83	2.37	1.10	2.41	1.38
13.	Modify the physical environment for the handicapped students in my classroom	1.73	.70	2.3	1.2	2.42	1.31
14.[a]	Communicate to counselors and special education teachers the skills necessary to participate in my vocational class	2.47	.99	2.90	.94	2.92	.90
15.[a]	Assist special educators in developing appropriate educational activities	1.33	.62	2.10	1.22	1.75	1.14
16.[a]	Parents of handicapped students receive information about my cooperative vocational education program	1.33	.49	1.94	1.00	1.45	.93

17.	Students in special education receive information	2.07	.80	2.27	1.11	1.78	.97
18.		3.2	.77	2.43	1.12	3.33	.87

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[a] Practices that correspond to PL 98-524 mandated criteria

[b] Pairwise comparisons of group means using Scheffe method were found to be significant $p < .05$ level, (.0177) 2 df.

* p. < .05

Analysis and Results. A one-way analysis of variance test was used to test for significant differences in effects of population density on implementation of mandated practices at $p < .05$ levels, 2 df. Only one practice -- communication with special education/resource/study skills teachers -- was significantly affected by population density. The Sheffe Procedure further defined a major difference at $p < .05$ (.0177), 2 df. between metropolitan and urban districts for this practice. No other practices, including mandated practices, are significantly affected by differences in population densities. The null hypothesis is therefore supported. Indeed, differences in population densities do not appear to affect implementation of mandated criteria. Even though the null hypothesis is supported, the differences in mean responses are worth noting. Urban districts have the greatest mean averages in the mandated practice. Although implementation is low (M = 1.52), urban districts are participating at the higher levels in IEP practices. Again, although implementation is low (M = 2.2), urban districts are doing the best job of informing students and parents about district cooperative education programs. Rural districts implement practices at the highest levels in seven practices, in spite of their apparent limited access to resources. Rural districts work best with outside agencies (DDD, DVR, etc.); are most confident in working with special education students; communicate most often with special educators about the skills needed for participation in their vocational education class, and as a result feel that students are most appropriately placed in their classes. Again, in spite of these apparent implementation pluses, mean implementation levels are still low.

Discussion. Since rural districts often verbalize their frustration with lack of resources, it's important to provide them with assurance that they are apparently implementing best practices at least as well, sometimes better, than urban and metropolitan districts with more resources. One explanation for their apparent more positive implementation results is the amount of time invested in inservice (see Study 5). Rural districts reported more inservice hours than either metropolitan or urban districts. In spite of fewer transition agencies available, rural districts are working with adult service providers at the greatest levels. The greatest success for rural providers is the fact that their students participate in their classes; perhaps increasing teacher confidence in being able to work with the students.

Also of significance in this part of Study #4 is the low implementation levels reported by the metropolitan districts. In spite of the largest staffs, the most supplemental money, the greatest diversity of placements available, they are not implementing any of the best practices at a level greater than the other two population densities. The greatest success in the metropolitan area classes is in the communication with counselors and special educators about the skills needed for their classes. However, implementation level is still only M = 2.47, .43 less than urban areas and .45 less than rural areas. There is an apparent need to target metropolitan areas for inservice and increased monitoring to insure implementation of at least the mandated criteria. Study results also point to the need for additional research that includes greater numbers of school districts, particularly schools from rural areas.

Null Hypothesis B. There are no differences in enrollment of youth with disabilities in cooperative education programs across metropolitan, urban, and rural settings.

Procedure. Enrollment of disabled students in cooperative education programs was categorized into no enrollment (0.0), low enrollment (1.0), and high enrollment (2.0). Enrollment categories were labeled "high," "low," and "no" enrollment according to how each reported class's enrollment compared to the average enrollment percent reported by all co-op classes in the study. For example, in Table 1A, the average disabled enrollment for all marketing classes is 2.2%. Therefore, an individual class with greater than 2.2% is a "high" enrollment class. Since more than half of the co-op classes have low (1.0) or no (0.0) enrollment, the enrollment means are very low. Table 4C (below) shows enrollment data. Population densities are explained in the Procedure Section for Hypothesis 4A.

TABLE 4C
Population Density and Enrollment of Youth with Disabilities in Cooperative Education Classes

	Vocational Classes (n)	Enrollment (0-2) M	SD
Metro	15	.53	.92
Urban	38	.92	.88
Rural	10	.80	.92
Total	63		

Analysis/Results. A one-way analysis of variance used to test for statistical differences among the three population densities. Results of the analyses supports the null hypothesis. There are no enrollment differences among the three population density categories.

Discussion. Urban districts appear to have a slightly greater mean enrollment. However, the standard deviation is nearly as high, thus precluding any other conclusions except perhaps further study using more subjects.

Null Hypothesis 4C. There are no differences in employment of youth with disabilities across metropolitan, urban, and rural settings.

Procedure. Employment percents are calculated by dividing the number of disabled youth employed by the total number of disabled youth in the class and multiplying by 100. The three population categories are defined in the Procedure Section for Hypothesis 4A.

TABLE 4D
Population Density and Employment of Youth with Disabilities in Cooperative Education Classes

	Vocational Classes (n)	% Disabled Employed M	Vocational Classes (n)	% Total Employed M
Metro	4	56.25	14	78.36
Urban	20	76.85	36	77.31
Rural	5	63.4	10	83.3
Total	29			

Note: Total reflects only those co-op classes with disabled youth.

Analysis/Results. Using a one-way analysis of variance, no statistically significant differences were found in the employment of disabled youth among the three population density categories. Thus the null hypothesis is supported.

Discussion. Although there are not significant differences in employment percentages among metropolitan, urban, and rural districts, rural districts in this study appear to have a greater placement rate than the urban and metropolitan districts. Taking into account the low number of rural schools in this part of the study and the large standard deviation from the means, no conclusions should be drawn. Further research that includes more districts, would provide more accurate data.

Study #5 - WHAT IS THE RELATIONSHIP BETWEEN THE AMOUNT OF TEACHER INSERVICE OBTAINED AND THE FOLLOWING: IMPLEMENTATION OF PL 98-524 MANDATED

CRITERIA AND THE ENROLLMENT AND EMPLOYMENT OF STUDENTS WITH DISABILITIES IN COOPERATIVE VOCATIONAL PROGRAMS.

In recent years, over one-half million of federal, state, and local dollars have been spent in Washington State on the joint training of vocational and special education teachers and administrators. In spite of hours of release time and numerous transition and interdisciplinary agreements, heightened awareness of the employment and training problems of handicapped youth may be the only substantial outcome stemming from these well-intentioned efforts (Weisenstein, Rockwell, and Rodriquez, 1986). Inservice studies by Joyce and Showers (1982) indicate only 2% of all teachers participating in traditional "one shot" inservices transfer their newly developed skills to their classroom. These are bleak statistics, indeed.

Study #5 attempts to establish the effects, if any, of "vocational special needs inservice" on specified outcomes pertaining to youth with disabilities in cooperative education classrooms.

Null Hypothesis A: There is no relationship between the amount of teacher inservice obtained and the implementation of criteria mandated by P.L. 98-524.

Procedure. Since PL 98-524 mandated criteria pertains to vocational education program practices, only vocational educator responses were utilized in Study #5. Cooperative education teachers provided their "vocational special needs" inservice clock hours in addition to their other responses. Hours were grouped into less than 5 hours (<5h), 6-15 hours, and more than 15 hours (>15h). Using a one-way analysis of variance, this relationship between inservice hours and implementation of current classroom practices was determined. Level of implementation was recorded on a Likert-type scale defined by number of times/percentage of time/number of students: 1) SELDOM - less than 25%, (2) SOMETIMES - 25-50%, (3) OFTEN - 50-75%, and (4) USUALLY 75-100%. Table 5A shows the mean scores of all practices and hours of inservice.

TABLE 5A
Inservice Hours and Mean Responses to Current Practices

Voc Ed Classes Total 56		Inservice Hours							
		None		5H		6-15H		15H	
		28		12		6		10	
		M	SD	M	SD	M	SD	M	SD
1.^{a}	Participate in IEP/ MDT meetings	1.07	.27	1.33	.65	1.50	.84	1.0	0.0
2.^{a}	Invited to participate in IEP/MDT meetings	1.17	.61	1.40	.90	1.67	.82	1.2	.42
3.^{a}	Provide vocational goals/ objectives for IEPs*	1.07	.26	1.50	.996	1.80	.98	1.6	1.08

4.	Communicate with special education/resource/study skills teachers about the handicapped students in my class	2.25	.97	2.08	.996	2.80	.98	2.9	1.10
5.	Adapt and modify materials for handicapped students in my class*	1.75	.70	1.82	.87	2.20	1.17	2.7	.82
6.	Work with DVR and DDD in providing transition services for the handicapped students in my class	1.11	.32	1.08	2.9	1.00	0.00	1.1	.32
7.	Confident about working with the handicapped students in my class	2.43	.997	2.25	1.14	3.00	.63	3.1	.88
8.	Handicapped students participate in classroom activities	2.79	.99	2.27	1.10	2.67	1.37	3.1	1.10
9.	Utilize volunteers/ tutors/aides	1.96	1.02	1.33	.78	2.00	1.10	1.9	1.10
10.	Modify grading Procedures	1.89	.96	2.08	1.08	2.00	.89	2.5	.85
11.	Discuss the special needs of my handicapped students with my advisory committee	1.39	.57	1.42	1.00	1.67	1.03	2.0	1.30
12.[a]	Handicapped students are placed appropriately into my class	1.90	1.05	2.08	.90	2.67	1.20	2.6	1.17
13.	Modify the physical environment for the handicapped students in my classroom*	1.96	.98	1.55	.93	2.67	1.50	2.89	1.05
14.[a]	Communicate to counselors and special education teachers the skills necessary to participate in my vocational class	2.60	.83	2.67	1.23	3.20	.75	3.30	.67
15.[a]	Assist special educators in developing appropriate prevocational activities	1.50	.79	1.80	1.20	2.30	1.50	2.20	1.30
16.[a]	Parents of handicapped students receive information about my cooperative vocational education program*	1.39	.50	1.80	1.02	1.30	.82	2.30	1.16
17.	Students in special education receive information**	1.71[b]	.66	2.27[b]	1.27	2.30[b]	.82	2.89[b]	1.05
Average M gain			+.07		.22		.182		

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[a] Practices that correspond to PL 98-524 mandated criteria

[b] Pairwise comparisons of group means using Scheffe method were found to be significant p < .01 level.

* p < .05
** p < .01

Cooperative education teachers also provided their perception of student/program adequacy and whether the availability of specified skills/resources enhanced or hindered participation of disabled students in their classes. Perceptions were recorded on a second survey, utilizing a Likert-type scale labeled (1) INADEQUATE (a barrier) to (4) ADEQUATE (no barrier). Table 5B lists perceptions significantly affected by inservice amount.

Perceptions of program adequacy are included in this discussion as well because of their apparent high susceptibility to inservice hours.

Analysis and Results. A one-way analysis of variance between and among the inservice groups detected significant differences at the p < .05 level, 3 df in five current practices. Three of these practices (vocational goals and objectives for IEPs and information to parents and students about vocational education programs) relate directly to PL 98-524 mandated criteria. Apparently, inservice hours affect the implementation of three of the mandated criteria. The null hypothesis is therefore refuted, at least in part.

As illustrated in Table 5A, five practices, including the three mandated criteria described above, are significantly affected by inservice hours. The between category gains, although significant, are small (+.07 - +.22). On the other hand, vocational teacher perceptions about program adequacy (see Table 5B), are significantly affected by inservice hours in eight categories, and gains between each of the categories are greater (+.27 - +.64). Note also that inservice appears to have the most effect in the 6-15h category.

TABLE 5B
Inservice Homes and Perception of Student/Teacher/Program Adequacy

HOURS	NONE		<5H		6-15H		>15H	
	M	SD	M	SD	M	SD	M	SD
Amount of student motivation to look for a job.*	2.2	.80	1.8	.92	3.2	.84	2.4	1.01
Amount of knowledge you have about instructional strategies**	1.7	.88	2.0	1.0	2.2	.84	3.2	.83
Ability to utilize alternative grading strategies**	2.3	.91	2.7	1.07	3.2	.84	3.6	.73
Cooperation between the special education teachers and myself*	2.8	.92	2.9	1.4	4.0	0.0	3.8	.44

Amount of knowledge special education teachers/counselors (people who schedule and place students) have about the skills necessary to participate in a cooperative vocational education class.*	2.3	.86	2.8	1.19	3.4	.89	3.2	.97
Amount of knowledge you have about special placement strategies/employer incentives/employer training**	1.83	.83	2.25	.97	2.8	.84	3.2	.83
Amount of interagency (Division of Vocational Rehabilitation, JTPA, Employment Security) cooperation*.	1.6	.7	1.4	.73	2.2	1.3	2.6	1.3
Quality of worker behaviors and social skills needed for the job.**	1.87	.69	2.27	1.00	3.0	1.0	3.0	1.0
Average M Gain		.274		.64		.314		

Note: This table is an abbreviated statistical summary of the participation survey, See Appendix for the complete survey.

* $p < .05$
** $p < .01$

Discussion. Vocational special needs inservice appears to have value, at least in the 6-15h range. And even though inservice appears to make significant differences in the implementation of five practices, level of implementation, however significantly different, is low. The highest mean level for "providing goals and objectives for IEPs" is M = 1.8. This means that fewer than 2 out of 5 students receive vocational education goals and objectives on their IEPs. Other practices reach higher mean levels, but none of the significantly affected practices reach M = 3.0 (implementation 50-75% of the time).

More significant differences are detected in the vocational teachers' perceptions of student/program adequacy (see Table 5B). In spite of low implementation levels of current best practices, mandated practices are evaluated increasingly adequate with increased inservice. Increased inservice hours appear to decrease the negative effects that low implementation of best practices might otherwise have. For example, the amount of interagency cooperation between the Division of Developmental Disabilities (DDD), the Division of Vocational Rehabilitation (DVR), and the vocational teacher is low (the highest level is M = 1.1 - SELDOM). Yet the perception that interagency cooperation, at whatever level, is adequate and not a barrier to placement improves significantly as a result of increased inservice hours. This may actually be harmful since the real problem - low implementation - is masked. The teacher does not realize or feel that growth is still needed. Again the best results are in the 6-15h range. The diminishing returns in the >15h range cannot be explained. Further study of inservice format, inservice content, and hours using a larger sample may provide more conclusive results.

Null Hypothesis B: There is no relationship between the amount of teacher inservice and the enrollment of youth in cooperative education with disabilities.

Procedure. Cooperative education teachers provided enrollment figures for youth with disabilities. Enrollment percentages were categorized into "no enrollment," "low enrollment," and "high enrollment." Table 5C shows these averages.

"Low enrollment" classes have lower enrollment percentages of youth with disabilities than the average enrollment percentage of all the classes in that program area. For example, a marketing education class with 2.1% youth with disabilities has "low enrollment;" a co-op office education class with 2.3% of its class with special education enrollees is "high enrollment" (see Table 1A for average disabled enrollments in program areas). Table 5C shows the mean number of inservice hours and enrollment.

TABLE 5C
Hours of Inservice and Enrollment of Youth with Disabilities in Cooperative Education Classes

Enrollment	(n)	Hours (0-15+)	
		M	SD
None	30	4.33	5.68
Low	8	6.25	5.82
High	16	5.0	6.32
TOTAL	54	4.81	5.82

Analysis/Results. A one-way analysis of variance was used to test for significant differences in enrollment as a result of inservice hours. No significant differences were found. The amount of teacher inservice does not appear to affect enrollment of youth with disabilities in cooperative education classes. The null hypothesis is supported.

Null Hypothesis C: There is no relationship between the amount of teacher inservice and the employment of youth in cooperative programs.

Procedure. Cooperative education teachers from 63 cooperative education classes provided inservice hours and employment percentages. Percentages ranged from 0-100%. Inservice hours were categorized into "no inservice," "less than 5 hours" (<5h), "6-15 hours," and "more than 15 hours" (>15h). See Table 5D.

TABLE 5D
Inservice Hours and Employment of Youth with Disabilities in Cooperative Education Classes

Hours	(N)	% Employed	
		M	SD
0	10	56.7	43.9
< 5	5	66.0	42.2
6-15	3	83.3	28.9
> 15	5	66.4	32.9
TOTAL	23	64.3	38

Analysis/Results. A one-way analysis of variance was used to test significant differences at the $p < .05$ level in employment which may be influenced by teacher inservice hours. No differences significant at the $p < .05$ level were detected. Therefore, the amount of teacher inservice does not appear to affect the employment of youth with disabilities in cooperative education classes. The null hypothesis is supported.

Discussion. Although no statistically significant differences are apparent in the percentage of placement related to inservice hours, employment does appear to increase as the inservice hours increase until 15h are reached. Best results again are in the 6-15h range.

The fact that inservice hours appear to have little affect on student enrollment and employment supports other research on the effects of inservice training (see p. 21). However, enrollment and employment may, in fact, be influenced by many variables. Perhaps inservice, studied in isolation, and particularly inservice that may not have focused on enrollment and employment, should not have been expected to influence enrollment and employment of youth with disabilities. No attempt was made in this study to identify specific inservice topics.

Study #6 - ARE THE PERCEPTIONS OF POSSIBLE BARRIERS TO DISABLED STUDENT PARTICIPATION IN COOPERATIVE EDUCATION PROGRAMS CONSISTENT ACROSS VOCATIONAL EDUCATION TEACHERS, SPECIAL EDUCATION TEACHERS, PARENTS OF STUDENTS WITH DISABILITIES, EMPLOYERS OF STUDENTS WITH DISABILITIES AND STUDENTS WITH DISABILITIES?

The premise surrounding this research question was to determine WHY students with disabilities were not accessing cooperative vocational education programs. The critical question is, what barriers to participation exist and are these barriers perceived by the various groups differently?

Questionnaires were developed for each of the groups listed above. Vocational educators returned an adequate number to be considered representative. The other four groups had relatively few returned questionnaires (see Subjects, p. 14). This discussion reflects the limitations imposed by a non-representative sample by using the vocational educators' data as the standard and comparing the other groups' data to it.

The Barriers to Participation surveys of each questionnaire provided subjects the opportunity to identify the barriers to participation in cooperative education classes by disabled youth. Each survey item was evaluated in a Likert-type 1-4 scale: 1) INADEQUATE = a significant barrier to 4) ADEQUATE = no barrier. A mean response of 2.5 or lower indicated a perceived barrier. An examination of the data detects which responses were statistically different at the $p < .05$ level.

Null Hypothesis: There is no relationship between the groups reporting and their perception of possible barriers to students with disabilities participation in cooperation education programs.

Procedure. The items from the special educators, employer, parent and student questionnaires which related to the items on the vocational educator's questionnaire were matched and a one-way analysis of variance was conducted on the mean responses of each set of questions. A Scheffe procedure was then conducted on those sets to determine the paired sets that were significantly different at the $p < .05$ level.

All employers surveyed had employees who were disabled youth. No attempt was made to gather responses from employers who had never employed a disabled youth.

Analyses - Perceived Barriers. Figure 6A shows the mean responses of the vocational and special educators for each question on the Participation section of the questionnaire. The following items are perceived as inadequate/somewhat inadequate and therefore are barriers to participation in cooperative education classes for students with handicaps: 1) number of job placements available, 2) amount of student motivation to look for jobs, 3) number of handicapped students scheduled into co-op classes, 4) amount of extra time available to place and coordinate handicapped students, 5) amount of knowledge about special instructional strategies, 6) amount of knowledge about special job placement strategies/employer incentives/employer training, 7) amount of interagency cooperation, and 8) quality of worker behaviors and social skills needed for the job. The responses with the lowest mean scores were: 1) amount of extra time available to place and coordinate handicapped students, 2) the amount of interagency cooperation, and 3) amount of student motivation to look for a job.

TABLE 6A
Perceived Barriers to Participation

		Voc Ed	Spec Ed
1.	Amount of prevocational preparation.	2.5	
2.	Number of job placements available.	2.3	2.5
3.	Amount of student motivation to look for a job.	2.3	2.1
4.	Number of handicapped students scheduled into your class.	2.4	2.4
5.	Amount of extra time available for you to place and coordinate handicapped students.	1.9	2.3
6.	Amount of support you receive from special education.		
7.	Amount of knowledge you have about special instructional strategies.	2.2	2.3
8.	Postivie attitude:		
	A. Myself		
	B. Other students		
	C. The handicapped student		
	D. Employers		2.5
9.	Amount of support from:		
	A. Principals		
	B. Advisory Committee		2.3
	C. Parents		2.5
	D. Other students		
	E. Other teachers		
10.	Ability to utilize alternative grading strategies.		
11.	Cooperation between the special education teacher and myself.		
12.	Amount of knowledge special education/counselor have about the skills necessary to participate in a coop, voc, ed. class		
13.	Amount of knowledge you have about special placement strategies/employer incentives and training.	2.4	2.5
14.	Amount of interagency cooperation	1.9	2.4
15.	Quality of worker behaviors and social skills needed for the job.	2.3	2.3

The employers, parents and students did not have any mean responses 2.5 or lower.

Items which are significantly different. The Scheffe procedure was used to determine which groups responded significantly different at the $p < .05$ level. Figure 6 graphically shows differences among the groups.

Student motivation to look for a job is perceived by both the vocational educators ($\underline{M}$ = 2.3) and special educators ($\underline{M}$ = 2.1) as barriers to participation in cooperative vocational education classes. The students ($\underline{M}$ = 4.0), however, responded in a positive manner with a 100% response rate that they did have motivation to look for a job. This response was significantly different to both groups of educators.

The vocational educators (M = 3.8) have a positive attitude about themselves and they do not perceive their attitude as a barrier to participation. The student sample (M = 2.7) also does not perceive the vocational educator's attitude as a barrier. However, their mean response was significantly different (lower) at the $p < .05$ level.

The employers (M = 3.2) have a positive attitude about students with disabilities participating in employment situations while special educators (M = 2.7) have a somewhat lower positive attitude. Neither group perceived this attitude as a barrier to participation but their perceptions were significantly different at the $p < .05$ level.

The vocational educators (M = 2.4) and special educators (M = 2.5) perceive the amount of knowledge they have about special placement strategies/employment incentives/employer training as a barrier to participation. The employers (M = 3.5) do not perceive this as a barrier to employment and their response is significantly different to both groups of educators at the $p < .05$ level.

The amount of interagency cooperation was perceived by both groups of educators (VE - M = 1.9; SE - M = 2.4) as a barrier to participation. The parent sample (M = 2.9) did not view this as a barrier and was significantly different in responding to the vocational educators' sample.

Quality of worker behaviors and social skills needed for the job is perceived by vocational educators (M = 2.3) and special educators (M = 2.3) as barriers to participation. However, the employer mean response (M = 3.1) was significantly lower than the special educators' responses at the $p < .05$ level.

TABLE 6B

Adequacy of Practices That Affect Participation of Disabled Students in Cooperative Education Classes

Discussion. The discrepancy between mean responses of educators and students regarding motivation to look for work is not only significantly different but has a 0.0 F probability. The difference may be accounted for by the fact that the students surveyed have not yet had to look for a job. They may have little experience with the realities that produce an apathetic or unmotivated job seeker. Of course, teachers may indeed be misunderstanding their students' apparent lack of motivation to look for work. This gross misperception on both their parts may lead to students' resistance to learning necessary skills or teachers not recognizing student needs.

The ability to use alternative grading strategies had an F probability of .03. This extremely low F probability again indicates little room for chance to influence mean responses. Four groups -- vocational and special educators, parents and students -- responded to this question. None of the groups regarded grading strategies as a barrier to participation. Parents (M = 3.4) and students (M = 3.3) felt students would be graded fairly in cooperative education classes. The vocational educators (M = 2.8) did not feel as strongly as the special educators (M = 3.1) about using alternative grading strategies. However, the majority of vocational educators did not perceive this practice as a barrier to participation, implying an acceptance of the use of alternative grading strategies if necessary.

Worker behaviors and social skills needed for the job received considerable attention in the literature. Vocational educators (M = 2.3) and special educators (M = 2.3) perceive this as a barrier; employers (M = 3.1) do not. Perhaps this discrepancy is explained by the fact that teachers only place the students who exhibit adequate worker behaviors and social skills in the classroom. The employers only see and work with the students who have mastered the needed social skills. The educators, on the other hand, deal with the whole spectrum of students, including students who lack necessary worker behaviors.

The amount of interagency cooperation was considered inadequate by vocational educators (M = 1.9). The parents responded significantly different (M = 2.9) and felt interaction was adequate enough to not be a barrier to participation for their child. A possible explanation for this difference is the lack of exposure vocational educators have to agencies outside the school system. Parents have typically dealt with agencies throughout their child's life. Vocational educators may perceive this lack of interagency cooperation a barrier because they have little experience or knowledge about agency activities.

The employers (M = 3.5) significantly differed from both groups of educators (VE - M = 2.4; SE - M = 2.5) about the amount of knowledge employers have about special placement strategies, employment incentives, and employer training. This indicates that employers perceive themselves to be more knowledgeable about job accommodations, tax credits, and special training incentives than as perceived by vocational educators, or employers know so little that they are inaccurately assessing their skills and knowledge. In either case, employers feel their knowledge is adequate and not a barrier to participation in cooperative education classes by disabled youth.

Attitude differences existed among vocational educators, students, employers, and special educators. The vocational educators (M = 3.8) perceive themselves as having a positive attitude towards students with disabilities while students viewed teacher attitude as significantly lower (M = 2.7). The reason for this indicates that the students surveyed may not have had any exposure to cooperative education classes and perceive all regular classes as difficult and taught by teachers with negative attitudes. Vocational educators who have had students with disabilities in their classrooms do not have a negative impression. The special educators (M = 2.7) have a significantly different response from the employers (M = 3.2) about their attitude toward students with disabilities. Although neither perceive attitudes as a barrier, the special educators mean response reflects a more conservative view of the employers' attitudes toward students with disabilities. The employers seem to have positive attitudes towards the students that they have worked with in the past. This may reflect a history of appropriate student placements.

Recommendations. Students with disabilities need information regarding the kinds of cooperative vocational education available including the positive and/or accepting attitudes of the vocational educators and employers. Educators need also to become aware of student motivation to look for jobs. The small study sample may not be representative of students in the state, but the 100% response on this issues clearly strengthens this argument.

Increased attempts are necessary to pull resources together to help educate students with disabilities in cooperative education classes to the maximum extent possible. Vocational educators should become more aware of Department of Vocational Rehabilitation (DVR) and Division for Developmental Disabilities (DDD) services available to youth ready to transition to work. To complete the resource awareness effort, parents need to receive more information about cooperative education classes. The combined effects of all these resources will synergetically produce positive outcomes for co-op students with disabilities.

Vocational educators expressed a need for more time to place and coordinate students with disabilities. Support services, such as aide time to do classroom clerical work so more teacher time can be devoted to placement and coordination is a possible solution. Peer/cross-aged tutoring within the vocational education class and resource room support from special education are other options that can increase the efficiency of vocational educators. Students with disabilities may be vocationally assessed to provide vocational educators a more accurate picture of students' interests and abilities. This information can also be used to place students in jobs which more nearly match their skills and abilities, resulting in more efficient use of coordination time.

Special educators perceived students with disabilities as lacking motivation to look for jobs. Classroom activities designed to increase independence and self-confidence is one answer to this expressed need. A graduated set of lessons which give more and more responsibility to the student in the areas of informational interviews, mock interviews, employer contacts to locate job leads and completing actual job applications to perspective employers give students realistic notions about job search challenges. Increased independence will give students increased confidence when job searching becomes a reality.

As stated earlier, the differences in perception of these different groups could lead to instructional job placement problems. Inaccurate perception of "others" often leads to poor communication, bad assumptions, and awkward working relationships.

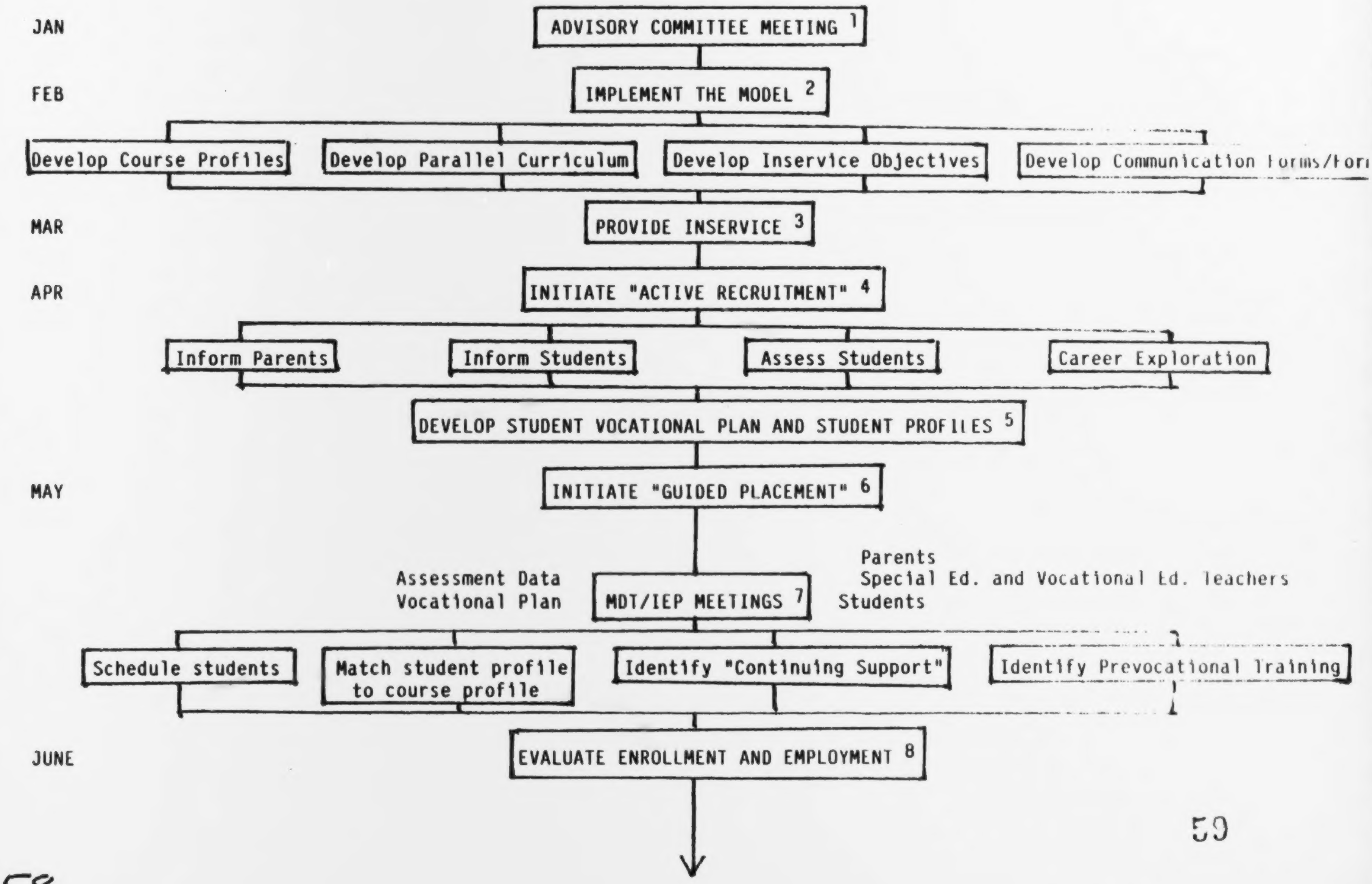
CHAPTER V

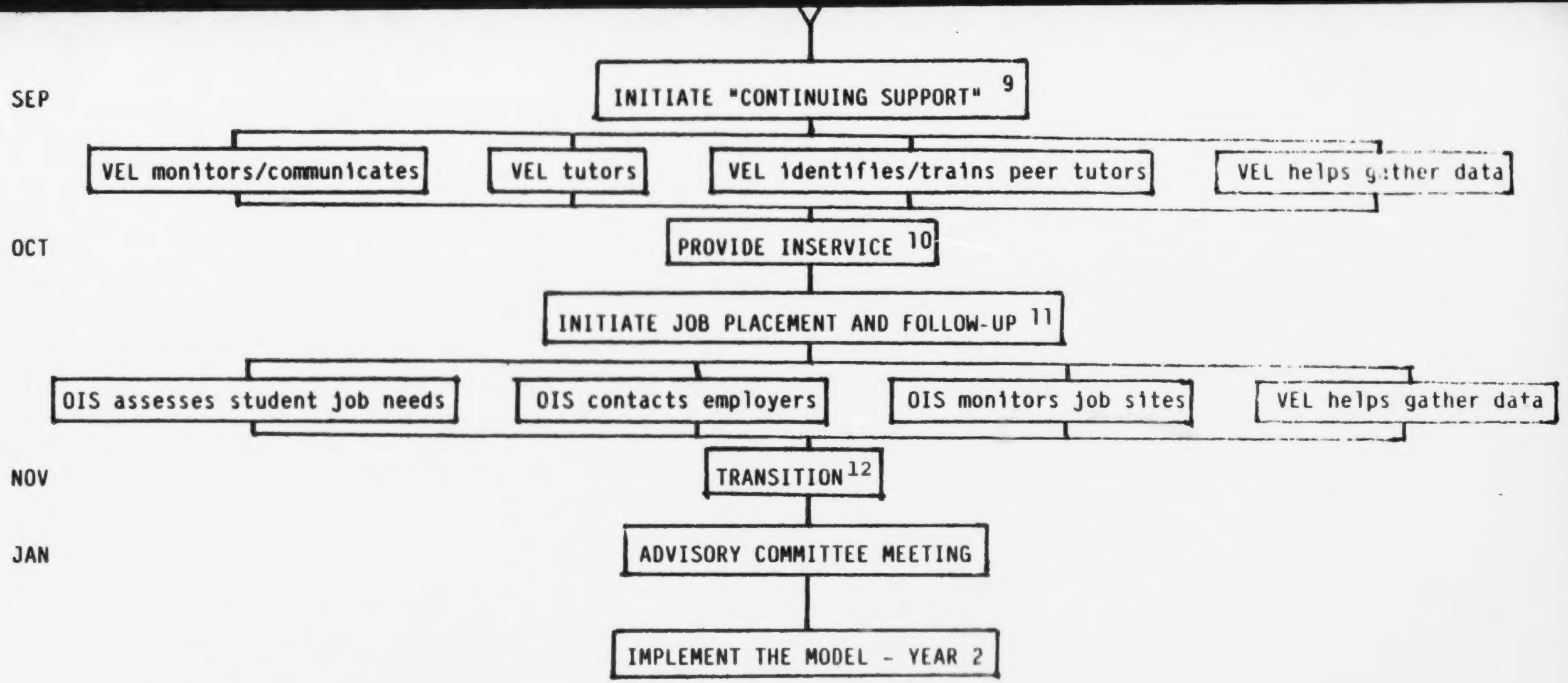
The Vocational Education Support Team Model

Research results, analyses, and recommendations provide the basis for the following intervention model designed to increase enrollment and employment of disabled youth in cooperative education classes. The Vocational Education Support Team Model has five core components: 1) Active Recruitment, 2) Guided Placement, 3) Continuing Support, 4) Job Placement and Followup, and 5) Transition. Twelve steps fully implement the model.

As envisioned, the complete model will look this way.

The Vocational Education Support Team (VEST) Model


JAN
ADVISORY COMMITTEE MEETING 1
FEB
IMPLEMENT THE MODEL 2
Develop Course Profiles
Develop Parallel Curriculum
Develop Inservice Objectives
Develop Communication Forms/For
MAR
PROVIDE INSERVICE 3
APR
INITIATE "ACTIVE RECRUITMENT" 4
Inform Parents
Inform Students
Assess Students
Career Exploration
DEVELOP STUDENT VOCATIONAL PLAN AND STUDENT PROFILES 5
MAY
INITIATE "GUIDED PLACEMENT" 6
Assessment Data
Vocational Plan
MDT/IEP MEETINGS 7
Parents
Special Ed. and Vocational Ed. Teachers
Students
Schedule students
Match student profile to course profile
Identify "Continuing Support"
Identify Prevocational Training
JUNE
EVALUATE ENROLLMENT AND EMPLOYMENT 8


SEP
INITIATE "CONTINUING SUPPORT" 9
VEL monitors/communicates
VEL tutors
VEL identifies/trains peer tutors
VEL helps gather data
OCT
PROVIDE INSERVICE 10
INITIATE JOB PLACEMENT AND FOLLOW-UP 11
OIS assesses student job needs
OIS contacts employers
OIS monitors job sites
VEL helps gather data
NOV
TRANSITION 12
JAN
ADVISORY COMMITTEE MEETING
IMPLEMENT THE MODEL - YEAR 2

1. Advisory Committee - Employers (labor and management), key teachers, and the vocational evaluator who are sensitive to the employment needs of disabled youth review the model and provide suggestions for local implementation.

2. Implement the Model - Suggestions for beginning the implementation process are included in Appendix B. The master grid of all course profiles can be compiled, or at least initiated during the inservice. Communication forms are provided to complement the personal communication between the Vocational Education Liaison (VEL) and the vocational and special education teachers. The enclosed bibliography of parallel curriculum can be used alone or as models for locally developed materials. "Planning the Inservice" ensures some measure of corporate responsibility for model implementation.

3. Provide Inservice - Inservice agendas should vary to meet the individual district and teacher needs. A few inservice aids are provided in Appendix C. This early inservice should provide teachers with definition and process for evaluating and monitoring student recruitment, enrollment, and placement as well as suggestions for special instructional and placement strategies.

4. Active Recruitment - Disabled students and their parents must be especially targeted for vocational education recruitment brochures; recruiting visits from vocational counselors and vocational education teachers and students; and skill center and vocational-technical institute open houses. Targeted students should then be vocationally assessed and provided opportunities to visit vocational education classes and places where people work. Appendix D provides vocational assessment information.

5. Develop the Vocational Plan and Student Profile - Vocational assessment, career exploration and other pertinent information results in an individualized vocational plan that suggests appropriate vocational education options. Further placement definition occurs when student profiles are matched to course profiles. Teachers, parents, and students utilize this information in placement discussions at multidisciplinary team (MDT) and IEP meetings. See Appendix E for sample Vocational Plans and Student Profiles.

6. Initiate Guided Placement - All information is gathered for review by the multidisciplinary team (MDT). "Guided Placement" is initiated.

7. MDT/IEP Meetings - The multidisciplinary team (MDT) reviews all information to ensure informed recommendations. Student interests, abilities, and skills (Student Profile) will be matched with course prerequisite skills (Course Profiles). If discrepancies exist (i.e., student skills are below course profile skills), the following options are available in anticipation of placement: a) students are specifically trained prior to placement, b) arrangements are made to tutor the student concurrent with enrollment in the vocational class, or c) special instructional accommodations or circumventions are designed with the

vocational instructor so that the student can participate. The MDT, which also includes designated vocational education personnel, agrees to course modifications (e.g., modified exit objectives, alternative teaching/grading techniques, etc., for use in the vocational component of the Individualized Education Program (IEP). The intent of "Guided Placement" is not to screen out students from vocational programs, but rather to identify potential problems ahead of time and provide assistance before failure occurs.

8. Evaluate Enrollment and Employment - Utilize the Vocational Special Needs Documentation Form (Appendix E) to document year-end enrollment and placement totals. This information is useful in evaluating not only enrollment and employment outcomes, but "drop-outs" as well and can point to needed recruitment efforts, inservice, and support services. Areas of consistent inequities as well as successes should be offered to the advisory committee for review and discussion.

9. Initiate Continuing Support - The Vocational Education Liaison (VEL) will assist vocational teachers and their students as they proceed through the course. The continuing support may appear in many forms depending on student needs: 1) tutoring/special assistance in the vocational classroom or in the resource room; 2) peer tutors, notetakers, and instructional aides; or 3) suggestions for behavior modifications or instructional strategies. All support will result from constant communication and coordination with the vocational education teachers. September data collection using the Vocational Special Needs Documentation Form (Appendix E) identifies student and teacher needs before failure occurs.

10. Provide Inservice - The October inservice should first focus on model progress - successes and concerns. Other inservice topics should include employer needs and employer incentives for employing special populations (i.e. Targeted Jobs Tax Credits and On-the-Job Training options). Counselors from the Division of Vocational REhabilitation and Developmental Disabilities should be introduced as participants in the transition from school to work process.

11. Initiate Job Placement and Followup of students will be assisted by specialists (e.g. occupational information specialists) who will help vocational educators place and coordinate students on the job.

12. Transition - Many transition models, including this one, describe how people, agencies, and services work together to build the school-to-work bridge. This model is different, however, because it includes all of the transition participants (teachers, students, parents, employers, and vocational rehabilitation counselors) in the total secondary program of the student. All of these individuals will participate in the multidisciplinary team process that already exists for handicapped youth. The team will deal not only with academic preparation and diploma requirements, but also with job maintenance and preparation for life after high school. A sample transition form, "Graduation Needs and Recommendations for Graduation" is in Appendix E.

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APPENDICES

A. Survey Instruments
B. Implementing the Model
C. Providing Inservice
D. Active Recruitment
E. Student Vocational Plan and Student Profile
F. Transition
G. Survey Summaries

Appendix A

Survey Instruments

Vocational Educators - Baseline Survey
Vocational Educators - Participation (Barriers) Survey

Special Educators - Baseline Survey
Special Educators - Participation (Barriers) Survey

Employer Survey

Parent Survey

Students Survey

VOCATIONAL EDUCATORS -- BASELINE SURVEY

UNIVERSITY OF WASHINGTON
SEATTLE, WASHINGTON 98195

UNIVERSITY OF WASHINGTON -- COMMISSION FOR VOCATIONAL EDUCATION

Transition Study on Handicapped Youth in Cooperative Vocational Education Programs

Baseline Data Survey

The University of Washington, College of Education, and the Commission for Vocational Education are cooperatively studying the transition of handicapped youth from school to work in cooperative vocational education programs. This survey will establish baseline data that describes where and how transition is currently occurring.

Instructions

1. Please complete all parts of the survey as completely and accurately as possible. If you have questions, contact Gwen Rockwell, University of Washington, (206) 545-1807 or SCAN 335-1807.
2. Refer to the following definitions as you complete the survey.

Definitions Used in Survey

Vocational Education - approved vocational education courses taught by vocationally certified teachers.

Cooperative Vocational Education - approved vocational education courses that have a work experience component with related classroom instruction.

Handicapped students - students who have Individualized Education Programs (IEP) and are served by special education programs.

Employed students - students who are working at least ten hours per week in competitive employment for at least minimum wages (3.35 /hour).

IEP - Individualized Education Program.

MDT - Multi-disciplinary teams at the building level who identify and discuss school programs for students with special needs.

University of Washington -- Commission for Vocational Education

Transition Study on Handicapped Youth
in Cooperative Vocational Education Programs

Baseline Data Survey

School District ______________________ School Name ______________

Number of Students: high school ________

Please List the Cooperative Vocational Education Classes that you teach:

Class Title	No. Total Students	No. of Handicapped Students	No. Total Students Employed	No. of Handicapped Students Employed
e: *Diversified Occupations*	*21*	*3*	*19*	*1*
Total				

Please list employers where handicapped students are placed. THESE EMPLOYERS WILL NOT BE CONTACTED WITHOUT YOUR PERMISSION.

Employer	Company Name	Nature of work assigned to student

Look on the back of this page

*** * * READ THE KEY (BELOW) CAREFULLY * * ***

Key to the rating scale:

Seldom(1)	Sometimes(2)	Often(3)	Usually(4)
-0-25% of the time	-25-50% of the time	-50-75% of the time	-75-100% of the time
-Up to 2 times out of ten	-3 to 5 times out of ten	-6 to 7 times out of ten	-8 to 10 times out of ten
-1 out of 5 students	-2 out of 5 students	-3 out of 5 students	-4 out of 5 students

Issue	Seldom	Sometimes	Often	Usually
1. I participate in IEP/MDT* meetings.	1	2	3	4
2. I am invited to participate in IEP/MDT meetings.	1	2	3	4
3. I provide vocational goals/objectives for IEPs*.	1	2	3	4
4. I communicate with special education/resource/study skills teachers about the handicapped students* in my class.	1	2	3	4
5. I adapt and modify materials for handicapped students* in my class.	1	2	3	4
6. I work with the Division of Vocational Rehabilitation (DVR) and/or the Division of Developmental Disabilities (DDD) in providing transition services for the handicapped students in my class.	1	2	3	4
7. I feel confident about working with the handicapped students* in my class.	1	2	3	4
8. Handicapped students participate in classroom activities.	1	2	3	4
9. I utilize volunteers/tutors/aides in my classroom.	1	2	3	4
10. I modify grading procedures for handicapped students in my classroom.	1	2	3	4
11. I discuss the special employment and classroom needs of my handicapped students with my advisory committee.	1	2	3	4

*See DEFINITIONS on cover sheet.

Issue	Seldom	Sometimes	Often	Usually
12. Handicapped students are placed appropriately into my class.	1	2	3	4
13. When necessary, I modify the physical environment for the handicapped students in my classroom.	1	2	3	4
14. I communicate to counselors and special education teachers the skills necessary to participate in my vocational class.	1	2	3	4
15. I assist special educators in developing appropriate prevocational activities that will prepare students for my class.	1	2	3	4
16. Parents of handicapped students receive information about my cooperative vocational education* program.	1	2	3	4
17. Students in special education receive information about my cooperative vocational education* program.	1	2	3	4

18. My students' employers are familiar with the laws affecting the employment* of handicapped individuals (e.g., employment incentives, accommodations required, etc.).

No Maybe Yes I don't know

19. I have participated in vocational special needs inservice training.

No Yes ________ no. of hours

Comments:

*See DEFINITIONS on cover sheet.

VOCATIONAL EDUCATORS -- PARTICIPATION SURVEY

Vocational Education Teacher Survey

UNIVERSITY OF WASHINGTON -- COMMISSION FOR VOCATIONAL EDUCATION

Transition Study on Handicapped Youth
in Cooperative Vocational Education Programs

Participation in Cooperative Vocational Education Programs

Transition from school to work is the goal of cooperative vocational education classes, yet handicapped students who need this transition opportunity most of all, are not consistently able to access cooperative vocational education classes. The following survey will endeavor to answer why these students have trouble accessing your classes. We need your opinion whether or not you have difficulties educating handicapped students in your classes. Thank you for your time.

Definitions used in the survey:

Vocational Education - approved vocational education courses taught by vocationally certified teachers.

Cooperative Vocational Education - approved vocational education courses that have a work experience component with related classroom instruction.

Special Education - educational services to handicapped students who have Individualized Education Programs (IEP).

Handicapped students - students who have Individualized Education Program (IEP) and are served by special education programs.

Employment - ten hours per week in competitive employment at minimum wages (3.35/hr.).

Support - help in the form of available resources: people, money, time, encouragement, etc.

Vocational Education Teacher Survey

Participation in Cooperative Vocational Education Classes

Directions:

Circle the number that best describes the issues that affect the participation of handicapped students in your cooperative vocational education class.

Key to the Rating Scale:

Inadequate (1)	Somewhat Inadequate (2)	Somewhat Adequate (3)	Adequate (4)
a significant barrier to participation	a probable barrier	a possible barrier	not a barrier to participation

Issue	Inadequate	Somewhat Inadequate	Somewhat Adequate	Adequate
1. Amount of prevocational preparation.	1	2	3	4
2. Number of job placements available.	1	2	3	4
3. Amount of student motivation to look for a job.	1	2	3	4
4. Number of handicapped students scheduled into your class.	1	2	3	4
5. Amount of extra time available for you to place and coordinate handicapped students.	1	2	3	4
6. Amount of support you receive from special education.	1	2	3	4
7. Amount of knowledge you have about special instructional strategies.	1	2	3	4
8. Positive attitude: myself	1	2	3	4
other students	1	2	3	4
the handicapped student	1	2	3	4
employers	1	2	3	4

Look on the back of this page.

Issue	Inadequate	Somewhat Inadequate	Somewhat Adequate	Adequate
9. Amount of support from:				
principals	1	2	3	4
advisory committee	1	2	3	4
parents	1	2	3	4
other students	1	2	3	4
other teachers	1	2	3	4
10. Ability to utilize alternative grading strategies.	1	2	3	4
11. Cooperation between the special education teachers and myself.	1	2	3	4
12. Amount of knowledge special education teachers/counselors (people who schedule and place students) have about the skills necessary to participate in a cooperative vocational education class.	1	2	3	4
13. Amount of knowledge you have about special placement strategies/employer incentives/employer training.	1	2	3	4
14. Amount of interagency (Division of Vocational Rehabilitation, JTPA, Employment Security).	1	2	3	4
15. Quality of worker behaviors and social skills needed for the job.	1	2	3	4

16. Other issues: ____

List the two major issues from the above issues that have the greatest impact (biggest barrier) on the success of special education students in your class.

1. ____________
2. ____________

List the two issues that have the least impact (no barrier) on the success of special education students in your class.

1. ____________
2. ____________

Comments:

Thank you for your participation.

SPECIAL EDUCATORS -- PARTICIPATION SURVEY

UNIVERSITY OF WASHINGTON
SEATTLE, WASHINGTON 98195

UNIVERSITY OF WASHINGTON -- COMMISSION FOR VOCATIONAL EDUCATION

Transition Study on Handicapped Youth in Cooperative Vocational Education Programs

Participation in Cooperative Vocational Education Programs

Transition from school to work is the goal of cooperative vocational education classes, yet handicapped students who need this transition opportunity most of all, are not consistently able to access cooperative vocational education classes. The following survey will endeavor to answer why these students have trouble accessing your classes. We need your opinion whether or not you have difficulties educating handicapped students in your classes. Thank you for your time.

Definitions used in the survey:

Vocational Education - approved vocational education courses taught by vocationally certified teachers.

Cooperative Vocational Education - approved vocational education courses that have a work experience component with related classroom instruction. (Diversified occupations, Marketing and Distributive Education, DE, DECA, etc.)

Special Education - educational services to handicapped students who have Individualized Education Programs (IEP).

Handicapped students - students who have Individualized Education Program (IEP) and are served by special education programs.

Employment - ten hours per week in competitive employment at minimum wages (3.35/hour).

Support - help in the form of available resources: people, money, time, encouragement, etc.

Special Education Teacher Survey

Participation in Cooperative Vocational Education Classes

School ______________________________

The above information will be kept confidential.

Directions:

Circle the number that best describes the issues that affect the participation of handicapped students in cooperative vocational education classes.

Key to the Rating Scale:

1	2	3	4
Inadequate	Somewhat Inadequate	Somewhat Adequate	Adequate
a significant barrier to participation	a probable barrier	a possible barrier	not a barrier to participation

Issue				
1. Amount of prevocational preparation.	1	2	3	4
2. Number of job placements available.	1	2	3	4
3. Amount of student motivation to look for a job.	1	2	3	4
4. Number of handicapped students scheduled into cooperative vocational education classes.	1	2	3	4
5. Amount of extra time available for the vocational teacher to place and coordinate handicapped students.	1	2	3	4
6. Amount of support you can give the vocational student/teacher.	1	2	3	4
7. Amount of knowledge the coop. vocational education teacher has about special instructional strategies.	1	2	3	4
8. Positive attitude: cooperative vocational education teacher	1	2	3	4
other students	1	2	3	4
the handicapped student	1	2	3	4
employers	1	2	3	4

Issue	1 Inadequate	2 Somewhat Inadequate	3 Somewhat Adequate	4 Adequate
9. Amount of support from:				
principals	1	2	3	4
advisory committee	1	2	3	4
parents	1	2	3	4
other students	1	2	3	4
other teachers	1	2	3	4
10. Personality of the cooperative vocational education teacher.	1	2	3	4
11. Amount of assurance that the handicapped student will be graded fairly.	1	2	3	4
12. Amount of assurance that the handicapped student will succeed in that class.	1	2	3	4
13. Cooperation between the cooperative vocational education teacher and myself.	1	2	3	4
14. Worker behaviors and social skills needed for a job.	1	2	3	4
15. Amount of knowledge about the skills needed to participate in a vocational education class.	1	2	3	4
16. Amount of interagency (Division of Vocational Rehabilitation-DVR, JTPA, PIC, Employment Security) cooperation.	1	2	3	4
17. Amount of knowledge the cooperative vocational education teacher has about special placement strategies/employer incentive/employer training, etc.	1	2	3	4

18. Other issues: ______________________________

List the two major issues from the above questionaire that have the greatest impact on the success of special education students in vocational education programs.

1. ________

2. ________

List the two issues that have the LEAST impact on the success of special education students in cooperative vocational education classes.

1. ________

2. ________

Comments:

Thank you for your assistance.

~~EMPLOYER SURVEY~~

UNIVERSITY OF WASHINGTON
SEATTLE, WASHINGTON 98195
College of Education

Employer Survey

UNIVERSITY OF WASHINGTON -- COMMISSION FOR VOCATIONAL EDUCATION

Transition Study on Handicapped Youth in Cooperative Vocational Education Programs

Transition from school to work is the goal of cooperative vocational education classes, yet handicapped youth who need this transition opportunity most of all are not consistently able to access cooperative vocational education classes and coordinated work experience. The following survey will try to answer why these students have trouble accessing these classes and getting jobs. Thank you for your time.

Instructions

1. Complete all parts of the survey as completely and accurately as possible. If you have questions, contact Gwen Rockwell (206) 545-1807.
2. Refer to the following definitions as you complete the survey.

Definitions Used in Survey

Cooperative Vocational Education - approved vocational education courses that have a work experience component with related classroom instruction (DO, DE, DECA, etc.).

Handicapped youth - students served by special education who have deficits in basic academic skills. The students may not necessarily be physically disabled.

Employment - ten hours per week in competitive employment for at least minimum wages (3.35/hour) .

Support - help in the form of available resources: trainers, time, encouragement, etc.

PARTICIPATION IN COOPERATIVE VOCATIONAL EDUCATION PROGRAMS

Employer Survey

Position ______________________________

Company ______________________________

Number of Employees ______________________

Number of Employees with Disabilities __________

Nature of the Disabilities _________________

How much training have you had in supervising/working with disabled workers?

___No Training _____10 hours _______11+ hours

(The above information will be kept confidential)

Please circle the number that best describes the issues that affect the employment* of handicapped* youth in your company.

Key to the Rating Scale:

A significant barrier to employment	A probable barrier	A possible barrier	Not a barrier to employment
1	2	3	4

	A significant barrier to employment	A probable barrier	A possible barrier	Not a barrier to employment
1. Quality of work-related skills.	1	2	3	4
2. Number of entry level jobs that can accommodate youth who have low basic academic skills.	1	2	3	4
3. Amount of extra, required, on-the-job supervision.	1	2	3	4
4. Amount of time to adequately train handicapped youth.	1	2	3	4
5. Amount of self-confidence students with disabilities have in employment situations.	1	2	3	4

* See definitions on first page

Issues	A significant barrier to employment	A probable barrier	A possible barrier	Not a barrier to employment
6. Amount of support* from school personnel,	1	2	3	4
7. Quality of worker behaviors/social skills needed for the job.	1	2	3	4
8. Amount of my training in supervising handicapped youth.	1	2	3	4
9. A positive attitude:				
a. myself	1	2	3	4
b. handicapped student employee	1	2	3	4
10. Approval from my associates/coworkers in my hiring these students. .	1	2	3	4
11. Attendance/promptness of handicapped youth.	1	2	3	4
12. Financial incentives for hiring handicapped youth.	1	2	3	4
13. Number of handicapped students available to be placed in jobs at my company.	1	2	3	4
14. My knowledge about this group of youth and their availability for work.	1	2	3	4
15. Amount of preparation/skills these youth need on the job.	1	2	3	4
16. Customer approval of my hiring handicapped students.	1	2	3	4

Other Concerns

____

____

List the numbers of two most important issues from the above list.

1. _____ 2. ________

List the two least important issues from the above list.

1. _____ 2. _______

Comments:

Thank you for your help

PARENT SURVEY

UNIVERSITY OF WASHINGTON
SEATTLE, WASHINGTON 98195

ollege of Education

UNIVERSITY OF WASHINGTON -- COMMISSION FOR VOCATIONAL EDUCATION

Transition Study on Handicapped Youth in Cooperative Vocational Education Programs

Participation in Cooperative Vocational Education Programs

Transition from school to work is the goal of cooperative vocational education classes, yet handicapped students who need this transition opportunity most of all, are not participating in these classes. This survey will try to answer why your handicapped child finds it difficult to participate in cooperative vocational education classes (e.g. DECA, Marketing, Business and Office, Diversified Occupations, etc.). Thank you for your time.

Instructions

1. Complete all parts of the survey as completely as possible. If you have questions, please call Gwen Rockwell, University of Washington, (206) 545-1807 or SCAN 335-1807.
2. Refer to the following definitions as you complete the attached survey.

Definitions Used in Survey

Cooperative Vocational Education - approved vocational education courses that have a work experience component with related classroom instruction.

Handicapped students - students who have Individualized Education Programs (IEP) and are served by special education programs.

SPECIAL EDUCATORS -- BASELINE SURVEY

UNIVERSITY OF WASHINGTON
SEATTLE, WASHINGTON 98195

UNIVERSITY OF WASHINGTON -- COMMISSION FOR VOCATIONAL EDUCATION

Transition Study on Handicapped Youth in Cooperative Vocational Education Programs

Baseline Data Survey

The University of Washington, College of Education, and the Commission for Vocational Education are cooperatively studying the transition of handicapped youth from school to work in cooperative vocational education programs. This survey will establish baseline data that describes where and how transition is currently occurring in cooperative vocational education classes.

Instructions

1. Please complete all parts of the survey as completely and accurately as possible. If you have questions, contact Gwen Rockwell, University of Washington, (206) 545-1807 or SCAN 335-1807.
2. Refer to the following definitions as you complete the survey.

Definitions Used in Survey

Vocational Education - approved vocational education courses taught by vocationally certified teachers.

Cooperative Vocational Education - approved vocational education courses that have a work experience component with related classroom instruction.

Handicapped students - students who have Individualized Education Programs (IEP) and are served by special education programs.

Employed students - students who are working at least ten hours per week in competitive employment for at least minimum wages (3.35/hour).

IEP - Individualized Education Program.

MDT - Multi-disciplinary teams at the building level who identify and discuss school programs for students with special needs.

Special Education Teacher Baseline Survey

University of Washington -- Commission for Vocational Education

Transition Study on Handicapped Youth in Cooperative Vocational Education Programs

Baseline Data Survey

School District ____________________ School Name ____________________

Student handicapping conditions (e.g. learning disabilities, mild mental retardation, hearing impaired, etc.) ____________________
____

Cooperative Vocational Education Classes in your high school:

Class Title	No. of Handicapped* Students	No. of Handicapped Students Employed*
Total		

Please list employers where handicapped students are placed. THESE EMPLOYERS WILL NOT BE CONTACTED WITHOUT YOUR PERMISSION.

Employer	Company Name	Nature of the work assigned to student

NOTE: Only count those handicapped students placed in and employed from COOPERATIVE VOCATIONAL EDUCATION CLASSES.

*See definition on cover page.

*** * * READ THE KEY (BELOW) CAREFULLY * * ***

Key to the rating scale:

Seldom(1)	Sometimes(2)	Often(3)	Usually(4)
-0-25% of the time	-25-50% of the time	-50-75% of the time	-75-100% of the time
-Up to 2 times out of ten	-3 to 5 times out of ten	-6 to 7 times out of ten	-8 to 10 times out of ten
-1 out of 5 students	-2 out of 5 students	-3 out of 5 students	-4 out of 5 students

Issue	Seldom	Sometimes	Often	Usually
1. Vocational Coop. Education teachers participate in IEP/MDT* meetings.	1	2	3	4
2. I invite Vocational Coop. Education teachers to participate in IEP/MDT meetings.	1	2	3	4
3. I receive vocational goals/objectives for IEPs* from Vocational Coop. Education teachers.	1	2	3	4
4. I communicate with vocational Coop. Education teachers about the handicapped students in their classes.	1	2	3	4
5. I adapt and modify materials for handicapped students in Coop. Vocational Education classes.	1	2	3	4
6. I work with the Division of Vocational Rehabilitation (DVR) and/or the Division of Developmental Disabilities (DDD) in providing transition services for the handicapped students in Vocational Coop. Education classes.	1	2	3	4
7. I feel confident about placing handicapped students in Vocational Coop. Education classes.	1	2	3	4
8. Handicapped students participate in vocational classroom activities.	1	2	3	4
9. I help Vocational Coop. Education teachers utilize volunteers/tutors/aides in their classrooms.	1	2	3	4

*See DEFINITIONS on cover page.

Issue	Seldom	Sometimes	Often	Usually
10. I help Vocational Coop. Education teachers modify grading procedures for handicapped students in their classrooms.	1	2	3	4
11. I help the Vocational Coop. Education teacher discuss the special employment and classroom needs of my handicapped students with their acvisory committees.	1	2	3	4
12. Handicapped students are placed appropriately into Vocational Coop. Education classes.	1	2	3	4
13. When necessary, I help the Vocational Coop. Education teachers modify the physical environment for the handicapped students in their classrooms.	1	2	3	4
14. I communicate with vocational educators about the skills necessary to participate in their vocational classes.	1	2	3	4
15. I ask for assistance from Vocational Coop. Education teachers in developing appropriate prevocational activities that will prepare students for vocational classes.	1	2	3	4
16. Parents of handicapped students receive information about my cooperative vocational education* programs.	1	2	3	4
17. Students in special education receive information about my cooperative vocational education* program.	1	2	3	4

18. Employers are familiar with the laws affecting the employment* of handicapped individuals (e.g., employment incentives, accommodations required, etc.).

No   Maybe   Yes   I don't know

19. I have participated in vocational special needs inservice training.

No   Yes ________
no. of hours

Comments:

*See DEFINITIONS on cover sheet.

Participation in Cooperative Vocational Education Programs*

Parent Survey

School Name ______________________________
(please print)

Directions

Please circle the number that best describes the issues that affect the participation of your son or daughter in a cooperative vocational education* class.

Key to the Rating Scale:

Inadequate	Somewhat Inadequate	Somewhat Adequate	Adequate
a significant barrier to participation	a probable barrier	a possible barrier	not a barrier to participation

Issue	Inadequate	Somewhat Inadequate	Somewhat Adequate	Adequate
1. Amount of information about available cooperative vocational education classes* in my school.	1	2	3	4
2. Amount of transportation for my son/daughter to get to/from a job.	1	2	3	4
3. Amount of supervision getting to/from a job.	1	2	3	4
4. Level of safety for my son/daughter in getting to/from a job.	1	2	3	4
5. Amount of time my son/daughter has for a job.	1	2	3	4
6. Amount of school supervision on the job.	1	2	3	4
7. Level of positive teacher attitude toward my son/daughter.	1	2	3	4
8. Amount of assurance that my son/daughter will succeed in that class.	1	2	3	4

*See DEFINITIONS on front page.

Issue	Inadequate	Somewhat Inadequate	Somewhat Adequate	Adequate
9. Amount of time available for a job after completing school work.	1	2	3	4
10. Amount of assurance that my son/daughter will be graded fairly.	1	2	3	4
11. Interagency cooperation (Division of Vocational Rehabilitation, Employment Security, and the schools).	1	2	3	4
12. Amount of prevocational training my son/daughter received before placement in cooperative vocational education classes.	1	2	3	4
13. Amount of tutoring and other support to my child in a vocational education class.	1	2	3	4

Other Concerns

____

____

____

List the two major issues from the above list.

1. ______________________________
2. ______________________________

List the two issues from the above list that have the least impact on your son/daughter.

1. ______________________________
2. ______________________________

Comments:

Thank you for your help.

STUDENT SURVEY

UNIVERSITY OF WASHINGTON
SEATTLE, WASHINGTON 98195

UNIVERSITY OF WASHINGTON -- COMMISSION FOR VOCATIONAL EDUCATION

Transition Study on Participation of Handicapped Youth in Cooperative Vocational Education Programs

Getting a job while you're still in school is a goal of some vocational education classes. Have you ever thought about taking these classes? Would you like to take a class that helped you find a job? This survey asks you a few questions. We want to know how to better prepare you for a job.

DIRECTIONS

Please read the sentence on the left, then decide how true it is for you. If the statement is TRUE, mark YES. If the statement is FALSE, mark NO. You can also mark I DON'T KNOW. Please mark only one answer.

DEFINITION

Cooperative Vocational Education Class - vocational classes that place students on jobs. (For example: DECA, DO, business education, etc.)

UNIVERSITY OF WASHINGTON
SEATTLE, WASHINGTON 98195

SCHOOL NAME: ______________________________

STUDENT SURVEY

Please answer the following questions.

1) Do you like working on a job? _____yes _____no _____don't know

2) Are you able to get transportation to/from work? _____yes _____no _____don't know

3) Do you have time for a job? _____yes _____no _____don't know

4) Does your school have cooperative vocational education classes? (for example, DECA, DO, etc.) _____yes _____no _____don't know

5) Would your counselor/teacher place you in a DO/DECA class? _____yes _____no _____don't know

6) Do you have friends in DECA or DO classes? _____yes _____no _____don't know

7) Do you think the teachers want you in their DECA or DO classes? _____yes _____no _____don't know

8) Would you be graded fairly in those classes? _____yes _____no _____don't know

9) Do you think those classes would be be too hard? _____yes _____no _____don't know

10) Would your parents want you to take those classes? _____yes _____no _____don't know

Two reasons why I'd like to be in a cooperative vocational education class:

1)

2)

Two reasons why I don't want to be in cooperative vocational education classes:

1)

2)

Thank You

Appendix B

Implementing the Model

Planning the inservice
Course profile
Bibliography of parallel curriculums
Sample communication forms

PLANNING THE INSERVICE

Something (an RFP) or someone (parent, administrator or teacher) suggests the need for vocational special needs inservice. Before developing specific workshop objectives for the immediate future, program administrators should develop, at least think about, a one-year and five-year inservice plan. The five year, long-range plan should begin with answers to the following questions:

- What are the program goals for the next five years? How do we want the program to grow, improve, or change?
- What types of inservice training will be necessary to meet these goals?
- What is the objective of each inservice session to be scheduled?

The result of this inquiry should be a four to five year sequence of planned experiences for change and improvement. It will be fairly general.

The next stage is developing a more detailed plan for the first year. This process should be initiated by the building principal. However, those who are closest to the need for change - the teachers - may start the process also. In any case, an Inservice Advisory Committee should be developed. AT A MINIMUM, THE COMMITTEE MUST INCLUDE REPRESENTATIVES OF BOTH SPECIAL AND VOCATIONAL EDUCATION AND IT MUST HAVE THE BACKING OF ADMINISTRATORS WHO COMMUNICATE THEIR COMMITMENT AND CREATE AN ATMOSPHERE OF TRUST. OTHER MEMBERS MAY BE A PARENT, AN EMPLOYER, A HANDICAPPED STUDENT, AND A HANDICAPPED WORKER (preferably a vocational education program graduate).

This committee, together with the building administrators and director of personnel development, then begins planning the actual training sessions. The process has steps.

A. Pinpoint the specific problem(s) to be solved. All committee members should be involved in sharing their knowledge, opinions, and experience to realistically identify the exact nature of the problems being addressed, the type of training needed to correct these problems, and who should receive it. The process should involve questioning each other, negotiating, being realistic, specific, and clear.

B. Identify tentative inservice objectives. After narrowing the problems to those that can be solved by additional teacher training (e.g., instructional modifications, awareness, etc.), develop tentative inservice objectives. They will stimulate further planning and provide information needed for funding proposals and communication with the teachers.

C. Conduct a needs assessment. The objectives tentatively identified by the committee are then validated by all those involved in solving the problems. An indepth model for ascertaining participant needs is outlined in Appendix A of this manual.

D. Plan the inservice experience. After you analyze the results of the needs assessment, determine the topics to be addressed, the targeted participants, the times and location, etc. If step C is completed successfully, many aspects of step D will be apparent. Agenda models are provided in Appendix B.

E. Develop the inservice design. Determine the basic elements of the training, including the following:

1. **Site selection** - consider size, cost, access for participants; availability and cost of food service, etc. Possible locations include the school district offices, restaurant and hotels. The inservice is more focused in a facility away from the school. (One of your teachers may have access to a condominium recreation room.)

2. **Format** - there are a great many possible formats for inservice delivery, from individual consultations and one-day inservices, to professional conferences, credit courses and long-term workshops which last a week or more. Some points to remember are: ONE-DAY WORKSHOPS should be at a location convenient to participants; maximum participation is crucial as is follow-up after the training is over. Consider devoting the first half (before lunch) to information dissemination and the second half to practical application and development of an Action Plan. LONGER WORKSHOPS that run for 20-30 hours, feel long. The inservice leader should prepare for a lull in the middle, with a feeling of "when will this ever end?" prevailing. The activities taught must be practical, usable, and pragmatic, providing immediate feelings of success. Longer workshops allow the use of community speakers (Employment Security, Division of Vocational Rehabilitation, etc.) and a problem-solving approach.

3. **Identify resources** - Who will provide the training? Are handouts, audio-visuals or other materials available or needed? Are funds available for trainer/consultant fees, release time, materials, or other needs? See Chapter ___ p. ___ for specific suggestion for resources.

4. **Devise a way to evaluate the training** This could consist of pre and posttests, participant satisfaction checklists, opportunities for participants to have evaluative input during the course of training so that modifications can be made, or any other means of determining whether the training was effective. Appendix C contains instruments used to evaluate increase in knowledge and affective reactions.

Some important points to remember throughout the planning process are:

- Inservice should be thought of as a systematic, ongoing process, rather than a reaction to crises or isolated events; and the planning (especially the long-term plan) should reflect this.

- All partcipants in the planning should feel *involved* in the process. Ask, for example, what they have liked in inservice; organize the work so that there is a feeling of sharing by all. It may be possible to provide opportunities to view other successful programs and practices. Assure that planning is a *cooperative* process.

- Create a climate of *trust*. Reduce anxiety, feelings of failure, or feelings of being judged by peers. This goes along with the previous suggestion and involves respect for each member's contributions.

- The inservice sessions themselves must be *individualized*, positive in approach, and respectful of individual needs. The emphasis should be on staff improvement.

- Be sure the total training program includes time for change.

- Planning should include attention to follow-up. The sessions should end with an Action Plan, defining *who* does *what*, *when*. The Action Plan should be monitored by someone who can determine whether agreed to items had been implemented and if interventions have been helpful.

Vocational Special Needs Inservice

Planning Checklist

This form provides the on-site inservice coordinator with a way of organizing the inservice planning for vocational special needs inservice.

__ 1. A long-range (five years) inservice plan has been visualized and discussed

__ 2. The Inservice Advisory Committee includes all affected groups:

____________________ administrator
____________________ counselor
____________________ vocational education
____________________ special education
____________________ parent of special needs student
____________________ special needs student
____________________ former student who is employed
____________________ employer

__ 3. Identified tentative objectives

____

____

____

__ 4. Plan the inservice, generally

Topics ____

____

____

Participants ____

____

____

Location ____

Date/Times ____

__ Release time _____
(no. of subs.)

__ Pay participants _____
no. who will need pay

__ 5. Develop the Design

__ one day
__ one day plus 3 hour follow-up
__ one day plus 2-3 hour follow-up
__ class (30 hours)
__ 1 1/2 days (10 hours)

__ 6. Identify Resources

Consultants ______________________________

Community Resources ______________________________

Contacts for Funding ______________________________

__ 7. Develop evaluation instruments

__ increase in knowledge
__ impressionistic data
__ action plan implementation

VOCATIONAL EDUCATION COURSE PROFILE MASTER GRID

READING LEVEL OF TEXT

Vocational Area	Reading Level

Rockwell/Weisenstein, 1984

COMPUTATIONAL SKILLS

Vocational Area	Adding	Subtracting	Multiplying	Dividing	Simple Fractions	Conversion of Fractions	Counting	COMMENTS

KEY

F = Element Frequently Required

C = Element Constantly Required

MEASUREMENT SKILLS

Vocational Area	Number Recognition	Change Making	Price Evaluation	Use Rulers Or Tape Measures	Use of Simple Guages	Use of Kitchen Measuring Device	Ounces	COMMENTS

COMMUNICATION SKILLS

Vocational Area	Reading labels or written instructions	Following recipe instructions	Comprehending oral instructions	Writing brief notations	Writing customer's orders	Talking with supervisor and/or co-workers	Talking with public	Ability to use the alphabet	Use of telephone	Use of telephone directory	COMMENTS

MANIPULATIVE SKILLS

Vocational Area	For simple hand tools and utensils	Operation of simple machines, manipulating controls & making minor adjustments	Operating cash register	Performing hand work, such as folding, sorting, slicing, etc.	Operate & service motor vehicles		COMMENTS

MISCELLANEOUS SKILLS

Vocational Area	Ability to work with tools & equipment safely	Ability to accept responsibility for safety of self & others	Ability to work in harmony with others	Willingness to accept responsibility for handling of money	Ability to work under close supervision	Ability to work independently or under general supervision	COMMENTS

PHYSICAL DEMANDS

Vocational Area	Strength Requirement

HAZARDS

Vocational Area	No Hazards	Mechanical Hazards	Safety Devices	Protective Clothing	Environmental Hazards	Fumes	Odors	Mists	Heat	Cold	Noise	COMMENTS

PERSONAL ATTRIBUTES

Vocational Area	Suitable Attire	Hygienic Requirements	Pleasant Manner	Poise	Tact in Dealing With Public	COMMENTS

OTHER SPECIFIC SKILLS

Prevocational and Parallel Curricula

Bibliography

Career Related Instruction (CRI) Materials. Michigan: Capital Area Career Center, 611 Hagadorm Road.

Select Student Instructional Materials - Module B-5 (1977). Columbus, OH: The National Center for Research in Vocational Education.

Systematic Teaching and Measuring Mathematics (STAMM) - Vocational Math (1978). Longmont, CO: Soprix West, Inc.

Vocational Applied Mathematics (VAM) (1984). Athens, Georgia: Vocational Education Materials Center.

Missouri Linc/University of Missouri - Columbia, 609 Maryland Ave. Columbia, MO 65211.

The Vocational Special Needs Library, College of Education, Texas A & M University, College Station, TX 77843-3256.

Spokane Public Schools
VOCATIONAL EDUCATION/SPECIAL EDUCATION
PROGRAM INTEGRATION MODEL

DATE:

TO:

FROM:

SUBJECT: IEP Conference for ____________________

YOU ARE INVITED . . .

Date: ____________________

Time: ____________________

Room Number: ____________________

Form No. 2 3/84

Spokane Public Schools
VOCATIONAL EDUCATION/SPECIAL EDUCATION
PROGRAM INTEGRATION MODEL

DATE:

TO:

FROM:

SUBJECT: IEP Conference for ____________________

YOU ARE INVITED . . .

Date: ____________________

Time: ____________________

Room Number: ____________________

Form No. 2 3/84

Spokane Public Schools
VOCATIONAL EDUCATION/SPECIAL EDUCATION
PROGRAM INTEGRATION MODEL

FYI (FOR YOUR INFORMATION)

DATE:

TO:

FROM:

SUBJECT: Student: ______________________ Grade: ____________

Class: ______________________ Period: ____________

Thank for your assistance in placing this student. The following information may be helpful to you.

Student's Reading Ability Level: ______________________

Math Ability Level: ______________________

This student learns most effectively:

Visually (written work): ______________________

Auditorally: ______________________

"Hands On": ______________________

Special considerations:

Form No. 3. 3/84

Spokane Public Schools
VOCATIONAL EDUCATION/SPECIAL EDUCATION
PROGRAM INTEGRATION MODEL

FOLLOW-UP

DATE:

TO:

FROM:

SUBJECT: Follow-Up on ______________________________

This student has been enrolled in your ______________________________

class for ____________ weeks.

Please check below to let me know how things are going, and return one copy to me.

______ Going great!

______ Okay

______ Please see me. My preparation period is ____________________

Comments (if desired). ______________________________

____

______________________________ (signed) ______________ (date)

Form No. 4 3/84

3 Copies: 1--to special education teacher
2--to vocational teacher
3--back to special education teacher

Appendix C

Providing Inservice

Needs Assessment
Vocational Special Needs Documentation

Return: ______________________________

By _______ ______________________________

VOCATIONAL SPECIAL NEEDS INSERVICE

NEEDS ASSESSMENT

The vocational and special needs departments will be participating in a workshop designed to increase the success of handicapped and disadvantaged students in vocational education. Please complete and return this form so that the workshop agenda reflects your needs.

Select five of your greatest inservice needs from the topics below. Assign a priority to those five, labeling them 1-5 with #1 being the highest priority.

___ Teaching strategies for providing vocational education to students who are handicapped, disadvantaged, and limited-English proficient.

___ Instructional and curriculum modifications in vocational education for special needs students.

___ Basic procedures in behavior modification and motivation of students

___ The vocational components of the Individual Education Plan (IEP)

___ The development of a district advisory committee on vocational education for special needs students

___ "How-to's" in work study, on-the-job training and job placement for special needs students

___ Improving the communication process between vocational education and special needs teachers

___ Vocational assessment tools and techniques useful in working with special needs students

___ Handicapped and disadvantaged conditions, restrictions and skill potentials in order to fit students with appropriate training

___ Means to stimulate motivation and interest in vocational preparation of special needs students

___ How to assist parents in understanding and assisting in the future vocational planning/training of special needs students

___ Grading procedures for special needs students in vocational education classes

___ Discerning minimum competencies for participation in vocational education

___ Identifying skill center and post-secondary options for students who are handicapped.

___ Special Education ___ Vocational Education ______________________
(vocational area)

___ Counselor ___ Other ______________________
(be specific)

___ ESL/Bilingual specialist

___ Chapter I specialist

Vocational Special Needs Vocabulary

Many frequently used words and phrases have multiple meanings. "Special Needs," even "Vocational Education" defy exact definition. Since these terms and other confusing expressions are used often in this booklet, vocabulary will be clarified first. Since professionals use and misuse vocational special needs terms, consider having a "time to define" early in your inservice agenda.

SPECIAL NEEDS: Students who "require special services and assistance in order to enable them to succeed in vocational education programs." SPECIAL NEEDS students are disadvantaged, handicapped, or limited-English proficient.

DISADVANTAGED: "Individuals (other than handicapped) who have economic or academic disadvantages and who require special services and assistance in order to enable them to succeed in vocational education programs. This term includes individuals who are members of economically disadvantaged families, migrants, individuals who have limited-English proficiency and individuals who are dropouts from, or who are identified as potential dropouts from, secondary school." (Perkins Vocational Education Act, Sec. 521 (12)) An academically disadvantaged student may exhibit one or more of the following:

1) a score below the 25th percentile on a standardized achievement test;

2) secondary school grades below 2.0 on a 4.0 scale;

3) behaviors of a dropout or potential dropout;

4) failure to meet minimum academic competencies.

An economically disadvantaged student may exhibit one or more of the following:

1) annual income at or below poverty level ($10,640 - family of four, non-farm, 1986);

2) eligibility for free or reduced lunch;

3) eligibility for public assistance (e.g., welfare, ACD, etc.);

4) receiving needs-based financial assistance (e.g., work study, Pell grant, etc.);

5) eligible for participation under Title II, Jobs Traning Partnership Act (JTPA);

6) participant, parent(s), or guardian(s) of the participant is institutionalized or under state guardianship.

A limited-English proficient student is one who may exhibit one or more of the following:

1) was not born in the United States or native tongue is a language other than English;

2) comes from an environment where a language other than English is dominant;

3) is American Indian or Alaskan Native and comes from environments where a languge other than English has had a significant impact on levels of English language proficiency; and

4) by reason thereof, has sufficient difficulty speaking, reading, writing, or understanding the English language to deny the opportunity to learn successfully in classrooms where the language of instruction is English or to participate fully in our society. (Rules and Regulations, Sec. 404.4 (b))

Disadvantaged vocational students are served by alternative schools; drug and alcohol abuse programs; dropout programs; Chapter I programs; institutions for incarcerated youth and adults; summer youth employment and training programs; and bilingual and limited-English-speaking programs (LEP). Disadvantaged students are NOT handicapped and do not have an Individualized Education Program (IEP) or an Individualized written Rehabilitation Plan (IWRP).

HANDICAPPED: "Means individuals who are mentally retarded, hard of hearing, deaf, speech impaired, visually handicapped, seriously emotionally disturbed, orthopedically impaired, or other health impaired persons, or persons with specific learning disabilities, who by reason thereof require special education and related services, and who, because of their handicapping condition, cannot succeed in the regular vocational education program without special education assistance." (Perkins Vocational Education Act, Sec. 521 (15))

Secondary handicapped students will have an Individualized Education Program (IEP) that prescribes services from special education.

Postsecondary handicapped students may have additional conditions described in the Vocational Rehabilitation Act of 1973, Section 504. This broader definition includes alcoholism, drug addition, cancer, etc. or any other impairment that "restricts one or more major life activities." The student may have a history of that disability or the "belief on the part of others that a person has a disability whether it is so or not." (Vocational Rehabilitation Act, Sec. 504)

Postsecondary handicapped students may be served by the Division of Vocational Rehabilitation (DVR), Labor and Industries (L & I), or other rehabilitation programs (DDD, VAR, etc.).

VOCATIONAL EDUCATION: means "1) organized educational programs which are directly related to the preparation of individuals for paid or unpaid employment or for 2) additional preparation for a career requiring other than a baccalaureate or advanced degree. These occupations are in such fields as agriculture, business occupations, home economics, health occupations, marketing and distributive occupations, technical and emerging occupations, modern industrial and agriculture arts, and trade and industrial occupations. Vocational student organizational activities must be an integral part of the program." (Perkins Vocational Education Act, Sec. 521(31)).

CAREER EDUCATION: is the "totality of experiences through which one learns about and prepares to engage in work as part of her or his way of living." (Hoyt, 1975) In career education students learn about not only occupational options, but also information about those life experiences that surround work--the home and the community. Recreation, use of leisure time, and how one spends the money earned are all part of career education. Vocational education is a component under the umbrella of career education; vocational education and career education are not interchangeable terms. Career education should be a part of every student's basic education. (   )

SPECIAL EDUCATION: is specially designed instruction, at no cost to the parents or guardians, to meet the unique needs of the handicapped child. The specialized educational program is outlined and justified in a written Individualized Education Program (IEP) that must be reviewed annually and revised if necessary. All children served by special education must have an IEP.

Guidelines, procedures, definitions and funding provisions are outlined in the federal legislation, The Education for All Handicapped Children Act of 19 .

Vocational Special Needs Vocabulary

Inservice Activity

Vocational special needs money "set aside" in the basic grant of the Carl Perkins Act of 1984 is dispersed to the local districts in proportion to the numbers of handicapped, disadvantaged and limited-English proficient students served by that district. Vocational education teachers must be able to identify these students in their classroom.

Objective: This activity will insure that the inservice participants can correctly identify and document their special needs students.

Materials:

1. Vocational special needs documentation forms
2. Class lists for the vocational classes

Time: 30 minutes

Instructions:

1. Group the participants into small groups. Each group should have vocational teachers, a counselor, and a special education teacher.
2. Using the class list and information from the group, the vocational teacher should list each special needs student on the Documentation Form and categorize each student according to definition.
3. Use the last 10 minutes of the activity to clarify the process.

Notes to the inservice leader:

- Secondary vocational students must have an Individualized Education Program (IEP) to be identified "handicapped."
- If individuals are handicapped AND disadvantaged, categorize them as "handicapped" only.

VOCATIONAL SPECIAL NEEDS DOCUMENTATION

Disadvantaged and Handicapped Student Served in Vocational Education

Date Data Taken

Sept_____ Oct_____

Jan_____ March_____ June_____

NUMBERS:

HANDICAPPED (IEP)_______________

DISADVANTAGED (NO IEP)_______________

LIMITED-ENGLISH PROFICIENT (NO IEP)_______

CLASS_______________________________

TEACHER_____________________________

MALE________

FEMALE______

			IEP		Hand.		LEP	Disadvantaged						INDIVIDUAL CONTACTS FOR REPORTING PERIOD *Extensive: Daily Contact* *Average: 2-3 days/ week* *Minimum: Weekly Contact*					
Student Name	Grade	Sex	Yes	No	Learning Disabled	Other Disabilities	Limited English Proficiency	Economically Disadvantaged	Mathematics Deficits	Language/Writing Deficits	Reading Deficits	Grades Below C	Poor Attendance/ Poor Attitude	Extensive	Average	Minimum	Dropped Class	Placed on Job	Comments

Appendix D

Active Recruitment

Vocational Assessment
Suggested Assessments

VOCATIONAL ASSESSMENT

Vocational evaluators use a variety of vocational assessment strategies, tools, and techniques to obtain both immediate and ongoing information that will aid the student in achieving vocational success.

Assessment instruments are most often used to identify/clarify one or more of the following:

- manual dexterities
- vocational/career interests
- job/training preferences
- learning style preference
- achievement level (math, reading)
- readiness level for job seeking/keeping/training

Information derived from vocational assessment is used to assist in determining vocational support service strategies. Specifically, vocational assessment can/should be used to:

- gather diagnostic information to aid in the vocational and educational planning process
- initiate counseling or work adjustment
- identify need for vocational evaluation
- assist in the planning of materials and methods to accommodate the needs of the student
- provide a concrete answer to specific questions regarding the possession of aptitude, interest, academic ability, or worker traits required to meet entry level skill requirements for training or employment
- many assessment instruments require training for appropriate/effective administration and interpretation.

Reprinted from "Vocational Support Service Team" (1984). Maryland: Maryland State Department of Education, Division of Vocational-Technical Education.

Vocational Assessment Instrumentation

NAME	TYPE			TARGET POPULATION by grade level					SCORING			READING by grade level					ADMIN. TIME in minutes			
	Interests	Abilities	Work Sample	K-6	7-9	10-12	Adult	Spec. Needs*	Self	Hand	Machine	Non	K-4	5-8	9-12	College	15 or less	16-30	31-60	61 and up
COPS	X				X	X	X		X	X					X				X	
COPS INTER	X			X	X	X		X	X	X				X				X		
CAPS		X			X	X	X	X	X	X	X		X						X	
CAREER-ASSESS INV.	X				X	X	X				X				X					X
GATB		X				X	X			X	X			X						X
NATB		X				X	X	X		X	X	X								X
JEVS	X	X	X				X	X		X		X	X	X	X				X	
KUDER (FORM CP)	X				X	X				X	X			X					X	
KUDER (FORM DD)	X					X	X			X	X			X					X	X
MICRO TOWER		X	X				X	X		X		X	X	X	X			X	X	
MVII	X					X				X	X			X	X					X
SINGER WORK SAMPLE		X	X		X	X	X	X		X			X	X	X				X	X
VALPAR SYSTEM		X					X	X		X		X	X	X	X					X
VIEWS		X	X			X	X	X		X		X							X	
WRIOT	X			X	X	X	X	X		X	X	X								

NAME	TYPE			TARGET POPULATION by grade level					SCORING			READING by grade level					ADMIN. TIME in minutes			
	Interests	Abilities	Work Sample	K-6	7-9	10-12	Adult	Spec. Needs*	Self	Hand	Machine	Non	K-4	5-8	9-12	College	15 or less	16-30	31-60	61 and up
ORAL DIRECTIONS TEST		X					X	X				X	X	X						
MINNESOTA RATE OF MANIPULATION		X					X	X		X		X						X		
BENNET HAND TOOL		X					X	X		X		X						X		
COATS	X	X	X		X	X	X	X		X	X	X							X	
CRAWFORD SMALL PARTS		X					X	X		X		X					X			
GEIST PICTURE INTER.	X				X	X	X	X		X	X	X						X		
JOBO	X					X	X	X	X	X				X	X			X		
MANIPULATIVE APTITUDE		X		X	X	X	X	X		X		X						X		
McCARRON-DIAL		X			X.	X	X	X		X		X								X
MN SPACIAL RELATIONS		X			X	X	X	X		X		X						X		
PA BIMANUAL WRK SAMP.		X	X			X	X	X		X		X						X		
PIES	X				X	X	X	X	X	X		X						X		
PROJECT DISCOVERY	X	X	X		X	X		X		X			X	X						X
PURDUE PEGBOARD		X					X	X		X		X						X		
READING FREE	X						X	X			X	X					X			
SPIB		X			X	X		X		X	X	X								X
VISA	X					X	X	X		X		X								X
WREST		X	X			X	X	X		X		X								X
WOIS	X	X				X			X	X	X				X	X			X	
Washington VIEWS	X	X				X			X	X					X	X			X	

TESTING & EVALUATION ASSESSMENTS

1. JOB-O
CFKR Career Materials, Inc.
Box 4
Belmont, CA 94402

2. IND-O
CFKR Career Materials, Inc.
Box 4
Belmont, CA 94402

3. BUS-O
CFKR Career Materials, Inc.
Box 4
Belmont, CA 94402

4. AG-O
CFKR Career Materials, Inc.
Box 4
Belmont, CA 94402

5. SCI-O
CFKR Career Materials, Inc.
Box 4
Belmont, CA 94402

6. PIES
Audio-Visual Supply Co.
2422 S.E. Hawthorne Blvd.
Portland, OR

7. COPS, CAPS, COPES
Edits
P.O. Box 7234
San Diego, CA 92107

8. Skills Checks
c/o Gene Bigger
CVE
Airdustrial Park Bldg. #17
Olympia, WA 98504

9. WRAT & WROIT
Jastak Associates, Inc.
1526 Gilpin Avenue
Wilmington, Delaware 19806

10. Fascinating World of Work (9 Life Values)
National Career Consultants, Inc.
1300 E. Arapaho Rd.
Richardson, Texas 75081

GEIST Picture Inventory
Western Psychological Inventory
12031 Wilshire Blvd.
Los Angeles, CA 90025

Becker AAMD
Psychological Corporation
1001 Polk Street
San Francisco, CA 94109

WOIS
Washington Occupational
Information System
(206) 754-8222

Washington VIEWS
Gary Dietzen
Yakima S.D.
(509) 575-3453

Appendix E

Develop the Student Vocational Plan and Student Profile

Individualized Vocational Plan
Student Profile

INDIVIDUALIZED VOCATIONAL PLAN Date ____________

Student ______________________________ Phone ____________________

____

Parent/Guardian ________________________ Phone ____________________

____

Occupational Recommendations from Vocational Assessment

1 ____________________ 4 ____________________

2 ____________________ 5 ____________________

3 ____________________ 6 ____________________

List Cooperative Education classes that match the skills/abilities indicated in the assessment

1 ____________________ Career Objective(s) ____________

2 ____________________ ____________________

3 ____________________ ____________________

Using the minimum competencies checklist, indicate skills to be learned in prevocational preparation

____

____

____

____

List behavioral skills student will need to learn.

1 ____________________ 6 ____________________

2 ____________________ 7 ____________________

3 ____________________ 8 ____________________

4 ____________________ 9 ____________________

5 ____________________ 10 ____________________

(please turn over)

kwell, 8/84

STUDENT PROFILE

Directions:

Indicate student's current skill level. Mark "yes" if student performs skill accurately at an acceptable rate. If "yes" cannot be marked, please comment on current skill level.

Information from this form will be used to appropriately place students in vocational education classes. Student profiles will be "matched" to course profiles.

Name________________________________ Birthdate________________

School________________________________

Reading Level____________________________

Computational Skills

	Yes*	Comments
Adding		
Subtracting		
Multiplying		
Dividing		
Simple fractions		
Conversion of fractions		
Counting		

*Indicate if student computes with or without calculator

Measurement Skills

	Yes	Comments
Number recognition		
Change making		
Price evaluation		
Use of rulers or tape measures		
Use of simple guages		
Use of kitchen measuring device		
Ounces		

Rockwell/Weisenstein (1984) University of Washington

Student Name______________________________________

STUDENT PROFILE (continued)

Communication Skills

	Yes	Comments
Reading labels or written instructions		
Following recipe instructions		
Comprehending oral instructions		
Writing brief notations		
Writing customer's orders		
Talking with supervisor and/or co-workers		
Talking with public		
Ability to use the alphabet		
Use of telephone		
Use of telephone directory		

Manipulative Skills

	Yes	Comments
For simple hand tools and utensils		
Operation of simple machines, manipulating controls and making minor adjustments		
Operating cash register		
Performing hand work, such as folding, sorting, slicing, etc.		
Operate and service motor vehicles		

Miscellaneous Skills

	Yes	Comments
Ability to work with tools and equipment safely		
Ability to accept responsibility for safety of self and others		
Ability to work in harmony with others		
Willingness to accept responsibility for handling of money		
Ability to work under close supervision		
Ability to work independently or under general supervision		

Rockwell/Weisenstein (1984) University of Washington

Student Name____

STUDENT PROFILE (continued)

Physical Limitations

	Yes	Comments

Sensitivities

	Yes	Comments
Fumes		
Odors		
Mists		
Heat		
Cold		
Noise		

Personal Attributes

	Yes	Comments
Dresses appropriately		
Hygienically appropriate		
Pleasant manner		
Poise		
Tact in dealing with public		

Additional Skills

	Yes	Comments

Appendix F

Transition

Graduation Needs and Recommendation for Graduation

Graduation Needs and Recommendation for Graduation

Student: ____________________ Birthdate: ____________ Age: ________

Address: ______________________________ Phone: ____________

Social Security Number: ______________________________

Graduation Needs:

Notified: ____________ 1.

____________ 2.

____________ 3.

____________ 4.

____________ 5.

	Yes	Paid	Not Interested
Invitation	____	____	____
Ring	____	____	____
Individual pictures	____	____	____
Group pictures	____	____	____
Cap and gown	____	____	____

Measurement of head: ____________________

Length: ____________________

Size: ____________________

Recommendation for Graduation:

The above-named student has fulfilled requirements as follows:

1. Training phase completed: Place of Employment: ____________________
   Date Begun: ____________________
   Date Completed: ____________________
   Did not need training phase because: ____________________
   ____
2. On-the-job training status completed: Place of Employment: ____________________
   Date Begun: ____________________
   Date Completed: ____________________
3. Earning record established: ____________________
4. Personal adjustment established: ____________________
5. Social adjustment established: ____________________
6. Work adjustment and responsibility established: ____________________

Comments:

____

____

____

Registration with the Rehabilitation Commission: Date: ____________

Student has agreed to keep in contact with coordinator until age 21: Y ____ N ____

I hereby certify the above requirements have been met and fulfilled by this student.

____________________ Date

____________________ Coordinator

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Appendix G

Survey Summaries

Baseline Surveys - Vocational and Special Educators

Participation Surveys - Vocational and Special Educators

BASELINE INFORMATION
SOURCE: VOCATIONAL EDUCATORS & SPECIAL EDUCATORS

1. I participate in IEP/MDT meetings.

Voc.	Class	Seldom	Sometimes	Often	Usually
DO	(12)	100.0			
ME	(31)	80.6	12.9	6.5	
BE/COE	(10)	100.0			
ICE	(1)	100.0			
AG	(3)	100.0			
CRT	(1)		100.0		
FOOD	(5)	100.0			
ALL VE	(58)	87.9	8.6	3.4	
ALL SE	(16)	81.3	12.5		6.3

2. I am invited to participate in IEP/MDT meetings.

Voc. Class		Seldom	Sometimes	Often	Usually
DO	(12)	66.7	33.3		
ME	(31)	77.4	16.1	3.2	3.2
BE/COE	(11)	100.0			
ICE	(1)	100.0			
AG	(3)	100.0			
CRT	(1)				100.0
FOOD	(5)	100.0			
ALL VE	(59)	81.4	13.6	1.7	3.4
ALL SE	(16)	62.5	25.0	12.5	

3. I provide vocational goals/objectives for IEPs.

Voc. Class		Seldom	Sometimes	Often	Usually
DO	(12)	58.3	33.3	8.3	
ME	(31)	74.2	9.7	9.7	6.5
BE/COE	(11)	90.9	9.1		
ICE	(1)	100.0			
AG	(3)	100.0			
CRT	(1)	100.0			
FOOD	(5)	100.0			
ALL VE	(59)	78.0	10.2	8.5	3.4
ALL SE	(16)	75.0	12.5	6.3	6.3

4. I communicate with special education/resource/study skills teachers about the handicapped students in my class.

Voc. Class		Seldom	Sometimes	Often	Usually
DO	(12)	8.3	16.7	33.3	41.7
ME	(31)	19.4	19.4	41.9	19.4
BE/COE	(11)	54.5	18.2	27.3	
ICE	(1)			100.0	
AG	(3)		66.7	33.3	
CRT	(1)			100.0	
FOOD	(5)		60.0	40.0	
ALL VE	(59)	25.4	27.1	33.9	13.6
ALL SE	(16)		6.3	50.0	43.8

5. I adapt and modify materials for handicapped students in my class.

Voc. Class		Seldom	Sometimes	Often	Usually
DO	(12)	8.3	50.0	33.3	8.3
ME	(30)	36.7	30.0	26.7	6.7
BE/COE	(10)	70.0	10.0	20.0	
ICE	(1)		100.0		
AG	(3)	33.3	66.7		
CRT	(1)		100.0		
FOOD	(5)	20.0	80.0		
ALL VE	(57)	33.3	40.4	19.3	7.0
ALL SE	(16)	37.5	31.3	18.8	12.5

6. I work with the Division of vocational Rehabilitation (DVR) and/or the Division of Developmental Disabilities (DDD) in providinng transition services for the handicapped students in my class.

Voc. Class		Seldom	Sometimes	Often	Usually
DO	(12)	83.3	16.7		
ME	(31)	83.9	9.7	3.2	3.2
BE/COE	(11)	100.0			
ICE	(1)				100.0
AG	(3)	100.0			
CRT	(1)		100.0		
FOOD	(5)	100.0			
ALL VE	(59)	91.5	8.5		
ALL SE	(16)	43.8	18.8	6.3	31.3

7. I feel confident about working with the handicapped students in my class.

Voc. Class		Seldom	Sometimes	Often	Usually
DO	(12)		25.0	16.7	58.3
ME	(31)	16.1	38.7	29.0	16.1
BE/COE	(10)	50.0	20.0	20.0	10.0
ICE	(1)			100.0	
AG	(3)		33.3	33.3	33.3
CRT	(1)			100.0	
FOOD	(5)		60.0	40.0	
ALL VE	(58)	15.5	31.0	31.0	22.4
ALL SE	(16)	6.3	37.5	25.0	31.3

8. Handicapped students participate in classroom activites.

Voc. Class		Seldom	Sometimes	Often	Usually
DO	(12)		8.3	33.3	58.3
ME	(30)	16.7	26.7	30.0	26.7
BE/COE	(10)	40.0	40.0		20.0
ICE	(1)				100.0
AG	(3)			33.3	66.7
CRT	(1)				100.0
FOOD	(5)	20.0	40.0	40.0	
ALL VE	(57)	15.8	24.6	26.3	33.3
ALL SE	(16)	6.3	18.8	12.5	62.5

9. I utilize volunteers/tutors/aides in my classroom.

Voc. Class		Seldom	Sometimes	Often	Usually
DO	(12)	50.0	16.7	25.0	8.3
ME	(30)	63.3	10.0	20.0	6.7
BE/COE	(9)	66.7	11.1	11.1	11.1
ICE	(1)	100.0			
AG	(3)	33.3	66.7		
CRT	(0)				
FOOD	(5)	40.0	60.0		
ALL VE	(55)	52.7	20.0	20.0	7.3
ALL SE	(16)	81.3		12.5	6.3

10. I modify grading procedures for handicapped students in my classroom.

Voc. Class		Seldom	Sometimes	Often	Usually
DO	(12)	25.0	41.7	16.7	16.7
ME	(31)	29.0	38.7	22.6	9.7
BE/COE	(10)	60.0	20.0	10.0	10.0
ICE	(1)	100.0			
AG	(3)	66.7		33.3	
CRT	(1)	100.0			
FOOD	(5)		80.0	20.0	
ALL VE	(58)	34.5	34.5	20.7	10.3
ALL SE	(16)	31.3	31.3	12.5	25.0

11. I discuss the special employment and classroom needs of my handicapped students with my advisory committee.

Voc. Class		Seldom	Sometimes	Often	Usually
DO	(12)	66.7	8.3		25.0
ME	(30)	73.3	10.0	13.3	3.3
BE/COE	(10)	90.0	10.0		
ICE	(1)		100.0		
AG	(3)	66.7	33.3		
CRT	(1)	100.0			
FOOD	(5)	20.0	60.0	20.0	
ALL VE	(57)	66.7	19.3	8.8	5.3
ALL SE	(16)	68.8	12.5	6.3	12.5

12. Handicapped students are placed appropriately into my class.

Voc.	Class	Seldom	Sometimes	Often	Usually
DO	(12)	8.3	33.3	25.0	33.3
ME	(31)	32.3	35.5	19.4	12.9
BE/COE	(10)	50.0	40.0	10.0	
ICE	(1)				100.0
AG	(3)	33.3	33.3	33.3	
CRT	(1)				100.0
FOOD	(5)	40.0	40.0	20.0	
ALL VE	(58)	32.8	31.0	17.2	19.0
ALL SE	(16)	18.8	25.0	18.8	37.5

13. When necessary, I modify the physical environment for the handicapped students in my classroom.

Voc.	Class	Seldom	Sometimes	Often	Usually
DO	(11)	54.5		9.1	36.4
ME	(31)	41.9	25.8	22.6	9.7
BE/COE	(8)	50.0	25.0	12.5	12.5
ICE	(1)		100.0		
AG	(3)	33.3	67.7		
CRT	(1)				100.0
FOOD	(5)	20.0	60.0	20.0	
ALL VE	(55)	38.2	27.3	16.4	18.2
ALL SE	(16)	43.8	37.5	12.5	6.3

14. I communicate to counselors and special education teachers the skills necessary to participate in my vocational class.

Voc.	Class	Seldom	Sometimes	Often	Usually
DO	(12)	8.3	16.7	41.7	33.3
ME	(32)	6.3	25.0	43.8	25.0
BE/COE	(10)	40.0	30.0	10.0	20.0
ICE	(1)				100.0
AG	(3)	—	33.3	66.7	
CRT	(1)			100.0	
FOOD	(5)		20.0	60.0	20.0
ALL VE	(59)	10.2	27.1	37.3	25.4
ALL SE	(16)	12.5	6.3	50.0	31.3

15. I assist special educators in developing appropriate prevocational activities that will prepare students for my class.

Voc.	Class	Seldom	Sometimes	Often	Usually
DO	(12)	50.0		25.0	25.0
ME	(32)	59.4	15.6	12.5	12.5
BE/COE	(10)	60.0	10.0	20.0	10.0
ICE	(1)			100.0	
AG	(3)	66.7	33.3		
CRT	(1)			100.0	
FOOD	(5)	40.0	60.0		
ALL VE	(59)	59.3	11.9	16.9	11.9
ALL SE	(16)	25.0	37.5	12.5	25.0

16. Parents of handicapped students receive information about my cooperative vocational education program.

Voc. Class	Seldom	Sometimes	Often	Usually
DO (11)	36.4	18.2	27.3	18.2
ME (30)	46.7	30.0	20.0	3.3
BE/COE (10)	50.0	30.0	10.0	10.0
ICE (1)		100.0		
AG (3)	33.3	66.7		
CRT (1)	100.0			
FOOD (5)	100.0			
ALL VE (58)	56.9	24.1	13.8	5.2
ALL SE (13)	7.7	30.8	23.1	38.5

17. Students in special education receive information about my cooperative vocational education program.

Voc. Class	Seldom	Sometimes	Often	Usually
DO (10)	10.0	30.0	20.0	40.0
ME (29)	20.7	37.9	27.6	13.8
BE/COE (10)	70.0	10.0	10.0	10.0
ICE (1)	100.0			
AG (3)	33.3	33.3		33.3
CRT (1)	100.0			
FOOD (5)		80.0	20.0	
ALL VE (55)	30.9	38.2	18.2	12.7
ALL SE (13)	15.4		23.1	61.5

18. My students' employers are familiar with the laws affecting the employment of handicapped individuals (e.g., employment incentives, accommodations required, etc.).

Voc. Class	NO	MAYBE	YES	I DON'T KNOW
DO (11)	9.1	36.4	9.1	45.5
ME (30)	13.3	13.3	26.7	46.7
BE/COE (9)		11.1	44.4	44.4
ICE (1)				100.0
AG (3)		33.3		66.7
CRT (1)			100.0	
FOOD (4)		50.0	25.0	25.0
ALL VE (53)	7.5	20.8	26.4	45.3
ALL SE (15)	6.7	40.0	6.7	46.7

19. I have participated in vocational special needs training.

Voc. Class		NO	YES
DO	(12)	33.3	66.7
ME	(31)	45.2	54.8
BE/COE	(10)	40.0	60.0
ICE	(1)		100.0
AG	(3)	66.7	33.3
CRT	(1)	100.0	
FOOD	(5)	80.0	20.0
ALL VE	(57)	52.6	47.4
ALL SE	(16)	12.6	87.5

PARTICIPATION INFORMATION
SOURCE: VOCATIONAL EDUCATORS

1. Amount of prevocational preparation.

		Inadequate	Somewhat Adequate
Voc. Class		Somewhat Inadequate	Adequate
DO	(8)	50.0	50.0
ME	(24)	54.2	45.8
BE/COE	(7)	57.1	42.9
ICE	(0)		
AG	(2)	50.0	50.0
CRT	(1)		100.0
FOOD	(5)	20.0	80.0
ALL VE	(50)	48.0	52.0

2. Number of job placements available.

		Inadequate	Somewhat Adequate
Voc. Class		Somewhat Inadequate	Adequate
DO	(8)	25.0	75.0
ME	(24)	70.8	29.2
BE/COE	(8)	75.0	25.0
ICE	(0)		
AG	(2)	50.0	50.0
CRT	(1)	100.0	
FOOD	(5)	40.0	60.0
ALL VE	(51)	58.9	41.2

3. Amount of student motivation to look for a job.

		Inadequate	Somewhat Adequate
Voc. Class		Somewhat Inadequate	Adequate
DO	(8)	37.5	62.5
ME	(23)	56.5	43.5
BE/COE	(6)	83.4	16.7
ICE	(0)		
AG	(2)	100.0	
CRT	(1)	100.0	
FOOD	(5)	40.0	60.0
ALL VE	(48)	56.2	43.7

4. Number of handicapped students scheduled into your class.

		Inadequate	Somewhat Adequate
Voc. Class		Somewhat Inadequate	Adequate
DO	(7)	14.3	85.7
ME	(22)	54.6	45.4
BE/COE	(8)	75.0	25.0
ICE	(0)		
AG	(2)	50.0	50.0
CRT	(1)		100.0
FOOD	(5)	100.0	
ALL VE	(48)	54.2	45.8

5. Amount of extra time available for you to place and coordinate handicapped students.

Voc. Class	Inadequate Somewhat Inadequate	Somewhat Adequate Adequate
DO (8)	50.0	50.0
ME (24)	79.2	20.8
BE/COE (8)	87.5	12.5
ICE (0)		
AG (2)	50.0	50.0
CRT (1)		100.0
FOOD (5)	80.0	20.0
ALL VE (51)	72.8	27.4

6. Amount of suppport you receive from special education.

Voc. Class	Inadequate Somewhat Inadequate	Somewhat Adequate Adequate
DO (8)	25.0	75.0
ME (24)	45.9	54.2
BE/COE (6)	50.0	50.0
ICE (0)		
AG (2)	100.0	
CRT (1)		100.0
FOOD (5)	60.0	40.0
ALL VE (49)	42.8	57.1

7. Amount of knowledge you have about special instruction strategies.

Voc. Class	Inadequate Somewhat Inadequate	Somewhat Adequate Adequate
DO (8)	50.0	50.0
ME (23)	65.2	34.8
BE/COE (7)	71.4	28.6
ICE (0)		
AG (2)	100.0	
CRT (1)	100.0	
FOOD (5)	60.0	40.0
ALL VE (49)	61.2	38.7

8A. Positive attitude of myself toward handicapped students in coop classes.

Voc. Class	Inadequate Somewhat Inadequate	Somewhat Adequate Adequate
DO (8)		100.0
ME (22)	4.5	95.4
BE/COE (7)	14.3	85.7
ICE (0)		
AG (2)		100.0
CRT (1)		100.0
FOOD (5)		100.0
ALL VE (48)	4.2	95.9

8B. Positive attitude of other students toward handicapped students in coop classes.

Voc. Class		Inadequate Somewhat Inadequate	Somewhat Adequate Adequate
DO	(8)		100.0
ME	(22)	13.6	86.4
BE/COE	(6)	16.7	83.3
ICE			
AG	(2)	100.0	
CRT	(1)		100.0
FOOD	(5)	40.0	60.0
ALL VE	(47)	17.0	83.0

8C. Positive attitude of the handicapped students about being in the coop classes.

Voc. Class		Inadequate Somewhat Inadequate	Somewhat Adequate Adequate
DO	(8)	12.5	87.5
ME	(22)	13.6	86.4
BE/COE	(6)		100.0
ICE	(0)		
AG	(2)	50.0	50.0
CRT	(1)		100.0
FOOD	(5)	20.0	80.0
ALL VE	(47)	14.9	85.1

8D. Positive attitude of employers toward handicapped students in coop classes.

Voc. Class		Inadequate Somewhat Inadequate	Somewhat Adequate Adequate
DO	(7)	14.3	85.7
ME	(24)	54.1	45.8
BE/COE	(7)	28.6	71.5
ICE	(0)		
AG	(2)	50.0	50.0
CRT	(1)		100.0
FOOD	(5)	20.0	80.0
ALL VE	(49)	38.0	61.2

9A. Amount of support from principals:

Voc. Class		Inadequate Somewhat Inadequate	Somewhat Adequate Adequate
DO	(8)	12.5	87.5
ME	(25)	20.0	80.0
BE/COE	(6)	33.3	66.7
ICE	(0)		
AG	(2)	50.0	50.0
CRT	(1)		100.0
FOOD	(5)	40.0	60.0
ALL VE	(50)	24.0	76.0

9B. Amount of support from advisory committee:

Voc. Class		Inadequate Somewhat Inadequate	Somewhat Adequate Adequate
DO	(7)	14.3	85.7
ME	(23)	21.7	78.2
BE/COE	(6)	50.0	50.0
ICE	(0)		
AG	(2)	50.0	50.0
CRT	(1)		100.0
FOOD	(5)	20.0	80.0
ALL VE	(47)	25.5	74.5

9C. Amount of support from parents:

Voc. Class		Inadequate Somewhat Inadequate	Somewhat Adequate Adequate
DO	(6)		100.0
ME	(25)	36.0	64.0
BE/COE	(6)	33.3	66.7
ICE	(0)		
AG	(2)	50.0	50.0
CRT	(1)		100.0
FOOD	(5)	40.0	60.0
ALL VE	(48)	31.3	68.8

9D. Amount of support from other students:

Voc. Class		Inadequate Somewhat Inadequate	Somewhat Adequate Adequate
DO	(6)	16.7	83.3
ME	(25)	36.0	64.0
BE/COE	(6)	50.0	50.0
ICE	(0)		
AG	(2)	100.0	
CRT	(1)		100.0
FOOD	(4)	50.0	50.0
ALL VE	(47)	38.3	61.7

9E. Amount of support from other teachers:

Voc. Class		Inadequate Somewhat Inadequate	Somewhat Adequate Adequate
DO	(5)	20.0	80.0
ME	(21)	28.6	71.4
BE/COE	(4)	75.0	25.0
ICE	(0)		
AG	(1)	100.0	
CRT	(1)		100.0
FOOD	(2)	50.0	50.0
ALL VE	(37)	32.4	67.5

10. Ability to utilize alternative grading strategies.

Voc. Class		Inadequate Somewhat Inadequate	Somewhat Adequate Adequate
DO	(8)	37.5	62.5
ME	(26)	34.6	65.4
BE/COE	(8)	62.5	37.5
ICE	(0)		
AG	(2)	50.0	50.0
CRT	(1)	100.0	
FOOD	(5)	20.0	80.0
ALL VE	(53)	37.7	62.3

11. Cooperation between the special education teachers and myself.

Voc. Class		Inadequate Somewhat Inadequate	Somewhat Adequate Adequate
DO	(8)	25.0	75.0
ME	(25)	20.0	80.0
BE/COE	(8)	37.5	62.5
ICE	(0)		
AG	(2)	50.0	50.0
CRT	(1)		100.0
FOOD	(5)	40.0	60.0
ALL VE	(52)	25.0	75.0

12. Amount of knowledge special education teachers/counselors (people who schedule and place students) have about the skills necessary to participate in a cooperative vocational education class.

Voc. Class		Inadequate Somewhat Inadequate	Somewhat Adequate Adequate
DO	(8)	25.0	75.0
ME	(26)	26.9	73.9
BE/COE	(7)	57.2	42.9
ICE	(0)		
AG	(2)	100.0	
CRT	(1)	100.0	
FOOD	(5)	40.0	60.0
ALL VE	(52)	38.5	61.5

13. Amount of knowledge you have about special placement strategies/employer incentives/employer training.

Voc. Class		Inadequate Somewhat Inadequate	Somewhat Adequate Adequate
DO	(8)	50.0	50.0
ME	(25)	56.0	44.0
BE/COE	(7)	57.1	42.9
ICE	(0)		
AG	(2)	100.0	
CRT	(1)	100.0	
FOOD	(5)	40.0	60.0
ALL VE	(51)	54.9	45.1

14. Amount of interagency (Division of Vocational Rehabilitation, JTPA, Employment Security) cooperation.

Voc. Class		Inadequate Somewhat Inadequate	Somewhat Adequate Adequate
DO	(8)	62.5	37.5
ME	(23)	82.6	17.4
BE/COE	(8)	62.5	37.5
ICE	(0)		
AG	(2)	100.0	
CRT	(1)	100.0	
FOOD	(5)	80.0	20.0
ALL VE	(50)	74.0	26.0

15. Quality of worker behaviors and social skills needed for the job.

Voc. Class		Inadequate Somewhat Inadequate	Somewhat Adequate Adequate
DO	(8)	37.5	62.5
ME	(23)	65.2	34.8
BE/COE	(8)	62.5	37.5
ICE	(0)		
AG	(2)	100.0	
CRT	(1)	100.0	
FOOD	(5)	40.0	60.0
ALL VE	(50)	58.0	54.0